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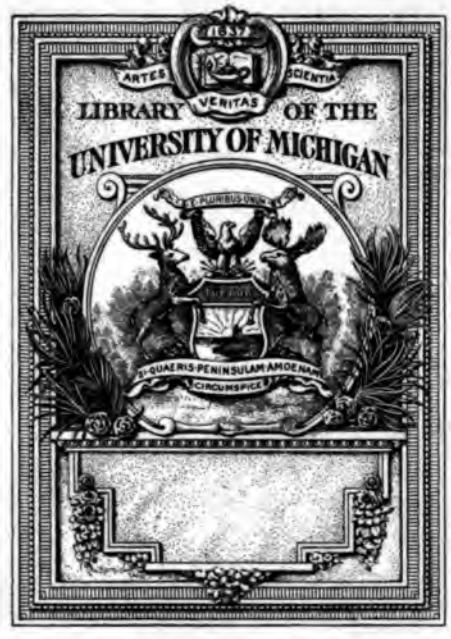
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FORTY-EIGHTH ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION

OF THE

STATE OF MICHIGAN,

WITH

ACCOMPANYING DOCUMENTS,

FOR

THE YEAR 1884.

BY AUTHORITY.

LANSING, MICH.:
W. S. GEORGE & CO., STATE PRINTERS AND BINDERS.
1885.

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DEPARTMENT OF PUBLIC INSTRUCTION,
Lansing, December 31, 1884.

To His Excellency, JOSIAH W. BEGOLE,
Governor of the State of Michigan:

SIR,—In compliance with the provisions of law, I have the honor herewith to transmit through you to the Legislature, the annual report of the Superintendent of Public Instruction, together with the accompanying documents for the year 1884.

Very respectfully,

Your obedient servant,

HERSCHEL R. GASS,
Superintendent of Public Instruction.

ANNUAL REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

FOR 1884.

ANNUAL REPORT.

The year just closed has been one of marked educational progress in the State.

The short crop of 1883, and the general business depression following in the succeeding year, have caused every tax-payer to feel the stringency of the times; but, notwithstanding the depression in money matters, the schools have been liberally provided for, and there seems to have been no abatement in educational work. The reputation which our State has gained in educational affairs should lead every citizen to take pride in the commonwealth in which he lives. The rural schools of the country districts, the graded and high schools in our cities and villages, and our colleges and University, all attest the intelligence of those who laid the foundations of our educational system and the liberality of those who have contributed to its support.

The opportunities for a scholastic training are not the only advantages afforded for an education. The public libraries that are found in so many of our townships, school districts, cities, and villages, provide a means of general culture for all classes of citizens. The number of these is constantly being increased, and thousands of volumes are yearly added thereto. With so many advantages so freely offered, there is no reason why the citizens of our State should not become a reading and a thinking people; and we have just cause to expect that the growth of cultivated intelligence within her borders will beget a like growth in the industry and integrity of her inhabitants.

A public school system is a creature of growth and improvement. The early educators did wisely and well in laying the plans for the building up of popular education in the State, but the changes which half a century has brought about in the conditions of society and in every branch of human industry, have necessitated corresponding changes in the school work which is to prepare the child for respectable and self-supporting citizenship. The common school education of a hundred years ago, though it may have been all that was demanded then, would to-day be an inadequate equipment for the person who expects to cope successfully with his fellow citizens in public or private life. Hence, old laws have to be amended, and new ones enacted concerning the support and management of our public schools.

It is not my purpose in this report to discuss at length the needed changes in our school laws. These changes were fully considered in my last report, and I would here again call the reader's attention to the subjects presented in the report of 1883, and ask his careful consideration of the same.

Examinations by County Boards.

In accordance with a strong feeling favoring the issuing of uniform sets of questions by the State Board of Education for use in the county examinations,

CHAPTER III, SECTION 15.

(§ 42), Page 18. Amended by Act No. 93. Takes effect September 7, 1883.

SEC. 15. The district board shall specify the studies to be pursued in the schools of the district: *Provided always*, That provision shall be made for instructing all pupils in every school in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics generally, upon the human system: *Provided further*, That the text-books used in giving the foregoing instruction shall have received the joint approval of the State Board of Education and State Board of Health. The said district board shall prescribe the text-books to be used, which shall be uniform in each subject that may be taught, but text-books once adopted under the provisions of this act shall not be changed within five years except by the consent of a majority of the qualified voters of the district present at an annual meeting. Each school board making a selection of text-books under this act shall make a record thereof in their proceedings.

CHAPTER XII, SECTION 4.

(§ 128), Page 39. Amended by Act No. 93. Takes effect September 7, 1883.

SEC. 4. The board of school examiners shall grant certificates to teachers in such form as the Superintendent of Public Instruction shall prescribe, licensing as teachers all persons who on thorough and full examination shall be found qualified in respect to good moral character, learning, and ability to instruct and govern a school; but no certificate shall be granted to any person who shall not pass a satisfactory examination in orthography, reading, writing, grammar, geography, arithmetic, theory and art of teaching, United States history, and civil government, and after September first, eighteen hundred and eighty-four, in physiology and hygiene with particular reference to the effects of alcoholic drinks, stimulants, and narcotics upon the human system. All certificates shall be signed by the secretary and chairman of said board.

These amendments took effect Sept. 7, 1883, but it will be seen that teachers were not required to pass an examination upon the subject of physiology until Sept. 1, 1884; hence the subject seems not to have been introduced into the ungraded schools very extensively previous to the last named date. What has been done during the present school year with reference to the introduction of the teaching of temperance in the schools can not yet be determined. For the school year ending September 1, 1883, six hundred and fifty-three schools were reported to this department as giving instruction in physiology. For the year ending September 1, 1884, eight hundred and nineteen were returned as giving such instruction, an increase of 20 per cent. for the year. There is no doubt that this increase is largely due to the existence of the law above referred to, and to the deep interest that temperance workers are taking in the inculcating of right principles of sobriety and integrity in the minds of the children who attend our schools. I have no doubt that the present year will show a greater increase in the number of schools giving instruction in this subject than the year previous.

The friends of the cause of temperance, more especially the Woman's Christian Temperance Union, are earnest workers in urging forward this means of reform, and many of them are actively engaged in seeing that the provisions of the law upon this point are carried out. This Department is in receipt of many letters from this class of workers, asking as to the intent and scope of the law upon this subject. While it has been our purpose to liberally interpret the law, and to give every encouragement for its proper enforcement, yet it has been necessary, in a few cases, to advise caution on the part of those whose zeal and over-earnestness were likely to magnify the intent of the statute, and to enforce its provisions so rigidly as to beget an opposition that would interfere with its observance and destroy its efficiency. The law says that

"provision shall be made for instructing all pupils in every school in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics generally, upon the human system." This has been interpreted by some to mean that every pupil in every grade must be taught this subject, which means that every pupil should study physiology during his entire school life. It has also been urged that oral instruction would not do, but that each pupil must receive instruction from a text-book.

Such a rendering of the law would necessitate the placing of a text-book on this subject in the hands of the pupil immediately upon his entering school, regardless of his inability to read or use a book to advantage; and it would compel students in our graded schools to pursue the study twelve years, providing they remained in school that length of time. The pupil's instruction in the earlier stages of his school life must necessarily be largely oral in all branches. Text-book work can be taken up to advantage only as he advances in the course.

The district boards have made provisions for the teaching of physiology to "all pupils in every school" when the course of study in every school specifies this as one of the branches to be taught. The fact that the pupil leaves school before he reaches this study as placed in the established course of studies, does not prove that provision has not been made for instructing him in this subject, nor does it shift the responsibility of his not receiving such instruction from himself to the district board. These are the constructions that have been given to the law by this Department in answer to correspondence upon this subject, and they are concurred in by the author of the bill that became the law.

In my opinion the enactment of this law is a step in the right direction. The common school is the nursery in which the child is prepared for intelligent manhood or womanhood. It is a potent agent in elevating the condition of a free people and protecting their liberties. A reasonable interpretation of this statute, and a judicious administration of its provisions, may render it an effective means in saving the young from vice and crime, and directing them into the ways of virtue and usefulness.

The books to be used for instruction in this subject must receive the joint approval of the State Board of Health and the State Board of Education. In accordance with the legal requirements, the following named books received the approval of the above named boards, July 8, 1884:

Hutchinson's Physiology and Hygiene, and his Laws of Health; Steele's Hygienic Physiology, and the abridged edition; The Eclectic Physiology, by Eli F. Brown; The Human Body, by Martin; Physiology, Hygiene, and Narcotics, by Mills; Lessons on the Human Body, by Braud; Physiology and Hygiene, by R. T. Brown. These books have been recently revised, and arranged with special reference to the teaching of the effects of alcoholic drinks, stimulants, and narcotics. The list embraces books suitable for the various grades of the public schools, including rural, graded and high schools.

High Schools.

The facts in the following tables are set forth for the second time in the reports from this Department. They were received and published in answer to occasional and unjust criticisms upon the sphere and work of the public high schools. The figures do not materially change the conclusions reached in my

last annual report, but the number of schools reporting are about twice the number of those that reported last year; and it is fair to conclude that similar reports from all the high schools of the State would show substantially the same results. It seems that but one conclusion can be drawn from these figures: that the high schools occupy an important field of educational labor, and are doing a valuable work; that they provide a fairly liberal education to many young men and women, who could not be thus educated were not these schools supported at public expense; and that those who graduate from them, instead of being unfitted for life's work, usually engage in honorable occupations and become self-reliant and self-supporting citizens.

TABLE—SHOWING THE OCCUPATION OF THOSE SENDING PUPILS TO SIXTY-FIVE HIGH SCHOOLS.

Pupils whose Parents are	Merchants.	Lawyers.	Doctors.	Ministers.	Farmers.	Mechanics.	Teachers.	Day Laborers.	Unclassified.	Whole No. Enrolled.
Boys	213	63	43	37	680	299	12	272	471	2,090
Girls	327	61	55	64	763	434	18	448	832	3,002
Totals	540	124	98	101	1,443	733	30	720	1,303	5,092

OCCUPATIONS OF PERSONS WHO HAVE GRADUATED FROM FIFTY-ONE SCHOOLS DURING THE FIVE YEARS BEGINNING WITH THE CLASS OF 1876.

Graduates who are	Merchants.	Lawyers.	Doctors.	Ministers.	Teachers.	Farmers.	Mechanics.	Day Laborers.	House-Keepers.	Unclassified.	No. of Graduates.
Males	68	38	19	7	92	74	10	14	6	289	617
Females	13	.....	4	.....	451	13	11	18	250	454	1,214
Totals	81	38	23	7	543	87	21	32	256	743	1,831

FINANCIAL STANDING OF THOSE SENDING CHILDREN TO FIFTY-ONE HIGH SCHOOLS.

Pupils whose Parents are worth less than	$500.	$1,000.	$2,000.	$3,000.	$5,000.	$10,000.	$20,000.	$25,000.	Whose parents are dead.	Total.
Boys	366	231	221	153	223	169	103	79	55	1,600
Girls	616	387	338	241	271	187	112	78	61	2,291
Totals	982	618	559	394	494	356	215	157	116	3,891

TABLE—SHOWING THE ENROLLMENTS, WITHDRAWALS, AND HEALTH OF PUPILS IN FIFTY-ONE HIGH SCHOOLS DURING THE SCHOOL YEAR 1883-4.

Items.	First Year.		Second Year.		Third Year.		Fourth Year.		Total.
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	
Total enrollment	748	1,112	491	781	274	495	108	230	4,239
Causes of Withdrawal:									
Ill-health	14	81	12	53	8	35	2	8	213
To work	246	104	156	60	62	22	12	6	668
Death	------	1	------	2	------	1	------	1	5
Removal	28	45	8	26	6	20	3	7	143
To teach	4	45	6	75	22	70	7	11	240
To enter other schools	4	11	13	12	3	6	1	2	52
Deficient scholarship	21	20	9	16	2	2	1	3	74
Disaffection	7	17	7	5	6	------	1	3	46
All other causes	35	75	29	60	20	29	------	7	255
Total withdrawals	359	399	240	309	129	185	27	48	1,696
Health:									
No. whose health has been injured by study	3	6	------	4	3	2	------	2	20
No. whose health has been injured by going up and down stairs	2	23	2	16	------	16	------	7	
No. whose health has been affected by any other cause	11	48	9	23	7	13	------	1	112
Total	16	77	11	43	10	31	------	10	1
Eyes:									
No. troubled with myopia	20	28	12	31	4	18	4	7	12
No. contracting myopia while in high school	------	1	2	2	2	2	------	1	10
No. uncertain when myopia was contracted	5	12	2	16	1	11	------	4	51
Total	25	41	16	49	7	31	4	12	185

TEACHER'S CONTRACT.

This department is called upon to render a great many opinions each year in answer to questions growing out of the quite common practice of teachers engaging in school work without a written contract. A teacher may conduct a school and collect pay for the time taught, without a written contract, but he is subject to a great many perplexities that may arise, and his services may be dispensed with at any time.

Another common practice that frequently occasions trouble with teachers and school authorities, is the custom of securing the consent to and signing of the contract from each school trustee without the authority of the school board. Such a contract has no binding force. To make a contract with a teacher valid it must be authorized by the board at a regularly called meeting, of which every member should have due and timely notice. After the board has directed the employment of a teacher, the signatures of any two members of the board in an ungraded district are sufficient to render a contract valid. No contract is valid when made with a person who has no certificate of qualification to teach in force at the time of making the contract, and the validity

of a contract ceases at the expiration of a certificate, either by limitation, annulment, or revocation, unless the latter be immediately renewed.

It is quite customary in graded school districts, and in some ungraded districts, for school boards to employ teachers for the succeeding school year. Objection has occasionally been made to this Department, on the ground that a portion of the members retire at the end of each year and that such action by the "old" board could not be binding upon the board as organized with the new members. Under the law a school board is considered a perpetual and the same body, though its membership may change. It has been held that a school board may employ a teacher for the succeeding school year, and that a contract with such teacher is valid for the time specified in it, not exceeding one year. The law is silent as to the length of time for which a contract may be drawn with a teacher, and in some cases such time would be modified by special laws or by established customs of districts. In the schools of some of the larger cities it is customary to employ teachers for a longer period than a year, and there is no doubt a court of justice would hold that a contract in such cases might be legally drawn for a period of more than one year. It is my opinion that, as a rule, in any district, a contract might be drawn with a teacher that would be valid until the terms of a majority of the officers expired who were members of the board at the time of authorizing the making of the contract.

To specify in a contract that a person is to teach a certain number of days, or that no holidays are to be allowed, does not compel the teacher to teach on those holidays nor to forfeit his pay if school is not taught, should those days occur upon days of the week that school is regularly in session.

The contract should specify the time for beginning school; the number of months to be taught; the amount of wages, the time for making payments; the privilege to terminate the contract by either party, upon giving a certain number of days' notice; the performing of janitor's services, if that is expected; and such other items as would avoid difficulties and lead to a better understanding of the work to be performed both by the teacher and the school board. The contract should also be in duplicate and each party to it should have a copy of the same.

Educational Exhibit at the Cotton Exposition, New Orleans.

In compliance with a request from the Hon. John Eaton, Commissioner of Education at Washington, I prepared a State educational exhibit for the World's Cotton and Centennial Exposition at New Orleans.

It was late in the season when notice was received that educational work was desired, and the time was too short to have pupils' work prepared in the public schools. This caused no great regret, as it is a common belief that such exhibits do not generally furnish a means for making a just comparison of the work done in different schools.

With sufficient time for preparation, large quantities of school work could have been secured, but the general impression among the educators of the State was that such work, arranged for a special purpose, furnished abundant material for filling up the alcoves of the exposition, but that it did not show the intellectual advancement and every-day work of the school. Kindergarten work and numberless volumes of examination papers usually occupy large portions of the space given to educational exhibits at national expositions, but such work seldom receives more than passing notice, and should it be closely

scrutinized it would not properly indicate the training and accomplishments of those performing it. I am aware that it has become quite customary to make educational exhibits by the means stated above, but I am also aware that I am not alone in my opinion in saying that it often *mis*represents the actual, daily work of the schools. Learning that such a feeling was prevalent among the school-men of the State, it was deemed advisable not to make any special effort to exhibit pupils' work at New Orleans.

In this connection, I would state that a large amount of pupils' work of various kinds was exhibited at New Orleans from the public schools of Grand Rapids; but it was not matter prepared for the occasion, but such as had accumulated from the regular work and examination of pupils during the year.

The State educational exhibit was designed to show what Michigan has done and is doing as a State to educate and better the condition of her citizens. For this purpose six mural charts were prepared on drawing paper, three by four feet, and properly framed. Two of these charts, in colors, were reduced and engraved, and they are bound in this report in the following pages and explain themselves. The other four were maps of the State. No. I. gives by counties the date of organization, entire population, school population, school enrollment, and sittings in school houses, also marginal tables with the same and a few additional facts for the last ten years. No. II. gives by counties the value of school property, school income, school expenditures and wages of teachers, with marginal summaries and tables of these and additional facts concerning receipts and expenditures for the last ten years. No. III. shows the distribution and location of the primary schools in the counties, and by colors indicates the character of each building constructed: frame, brick, stone, or log. A summary of the same is given by counties in the margin. No. IV. shows by counties the number and location of the graded village and city schools, the distribution of the township and district libraries, and by appropriate characters and colors the location of the State institutions—educational, penal, and charitable—the denominational colleges and the incorporated schools. In the margin are given statistical tables for the village and city schools of each county, showing population, school census, enrollment, length of school, sittings, number of teachers, teachers' wages, receipts, and expenditures.

The exhibit consisted further of photographic views of all the State institutions, colleges, chartered institutions of learning, and a few of the public high and graded school buildings. These were framed in groups, and in connection with each institution was placed a tablet giving the date of organization, first cost, present valuation, annual running expenses, sources of income, entrance and tuition fees, total and present attendance, number of graduates, method of management, number of instructors and employés, board of control, etc., etc.

It is expected that the exhibit will be returned to the State and be placed in the Department of Education at Lansing when the exposition closes.

Supreme Court Decisions.

No decisions from the Supreme Court are published in this volume. It has been customary to embody in the reports from this Department the findings of the Supreme Court during the year upon all questions pertaining to the school law. But no litigation upon school matters came before the Supreme Court for the year 1884, hence the absence of judicial decisions in this report.

LEGISLATION.

In the report from this Department for 1883 were discussed at some length several subjects upon which legislation was recommended. Since that time I have seen no reason for changing my opinions as expressed in those discussions. Wishing again to call attention to desirable changes in our school laws, I embody here the suggestions made concerning legislation in my last report, and for full discussion of the subjects I refer you to the same report:

1. The township should be made the district unit for the management of local school affairs.
2. The laws should be so amended as to facilitate the grading of work in country schools.
3. Uniformity of text-books in the schools is demanded. Township uniformity is the most practicable plan, and is best accomplished by the district furnishing the books.
4. Better supervision of the schools is needed. This should be under the control of and largely conducted by the secretary of the county board of examiners.
5. The compulsory school law should be made more effective. The distribution of the primary school interest fund on the basis of percentage of attendance, under proper restrictions, would be a potent agent in securing school attendance.
6. More stringent measures should be enacted to induce *all* school officers and teachers to a strict observance of the laws concerning their official duties. Especially as relates to making reports, employing teachers, and disbursing school funds. A forfeiture of primary school interest money or a portion of salary, for a non-compliance with the requirements of the laws, would help to secure their enforcement.
7. No provision is made for defraying the necessary expenses of visitors who are appointed to visit the educational institutions of the State and to report their workings. I would advise that the State provide for the necessary expenses of these persons while performing their duties as members of these visiting boards.

The subject of the township district was discussed quite fully at the last meeting of the State Teachers' Association, and a committee of three was appointed to look after school legislation at the coming session of the Legisture. By the authority of the committee, the following circular was arranged and placed in the hands of legislators and distributed throughout the State for the purpose of disseminating knowledge and getting an expression of public opinion upon this important subject. A bill to be brought before the Legislature was also embodied in the circular:

SCHOOL LEGISLATION.

Township District System.

The undersigned committee, appointed by the State Teachers' Association to consider needed school legislation, would respectfully call your attention to the following circular and summary of Senate bill, File No. 69:

The committee would be pleased to receive expression concerning such proposed legislation from those persons or organizations to whom this circular may be sent. Communications may be addressed to the chairman of the committee, D. Howell, Lansing, Michigan.

There is no question connected with our school system that demands more thoughtful consideration than the subject of township organization. The defects of our present separate, independent school districts are very generally conceded, and, with a view to removing these difficulties, a bill is now pending in the Legislature providing for the establishment of township school districts. That there may be a more general understanding of the changes contemplated by this bill, and of the reasons that have led to its preparation and introduction in the Legislature, it has been deemed best to embody its leading provisions in circular form, together with the opinions of various State Superintendents, and other educators, upon the system that is sought to be adopted in this State.

The essential features of the present bill were embodied in a bill which was introduced in the Legislature of 1861, and it is reported that the measure was earnestly

supported in both houses, but owing to the pressure of other legislation, it was passed as part of the unfinished business of the session.

Experience has demonstrated the inefficiency of the present district system, and to-day the sentiment of educators of the country is almost universally favorable to the township system. As showing the opinions of educators upon this subject, the following extracts from the reports of the Superintendents of Public Instruction of several States are here given. Wherever the system has been tried, it is most unqualifiedly commended; and, almost without exception, in those States that are working under the old district system, the sentiment of those most interested in educational work is in favor of making the civil township the school district.

In the following States the township system is in vogue, either fully or in a modified form; and in those States where the management of the schools is divided between the district and township officers, the adoption of the township system in its entirety is recommended: Indiana, Pennsylvania, Massachusetts, Connecticut, Iowa, Maine, New Hampshire, Alabama, Wisconsin, Rhode Island, Dakota, Vermont.

The school system of the States named below is organized and maintained on the district plan, and the Superintendent of each State strongly recommends the township system: Ohio, New York, Illinois, New Jersey, Minnesota, Arkansas, New Hampshire, Kansas, Michigan.

The following extracts from reports of the above mentioned States show the unanimity of sentiment on this question:

Massachusetts.—The Board of Education in their report for 1881-2 say: "Wherever, during the last thirty years, the districts have been abolished, it has been found that fewer school-houses, in proportion to the population are needed; a better classification of pupils is secured; and a more even distribution of good school acommodations and well-qualified teachers is given to the towns. A more just expenditure of money, and a more economical administration of the schools in every way, have been the invariable results of the town instead of the district system. By the abolition of the district system the small towns, and the small districts, with few pupils, have always received the greatest benefits."

Rhode Island.—In his report for 1884, the Superintendent of Public Instruction says: "The legislation of the two sessions of the General Assembly in 1884 was marked by a very decided tendency towards the establishment of the town system in place of the district system." "The whole tendency of this legislation, it will be seen at once, is in the direction of the enlargement of the powers of the town committee, and the decrease of those of the district. The discussions of the past few years have turned the minds of thoughtful persons and those interested in schools in this direction, and those who examine into the subject, almost without exception, come to the conclusion that it is a mistake to maintain a system that has so much to condemn it and so little to commend it."

Minnesota.—"Our common schools are seriously hampered by our plan of dividing the State into nearly 5,000 sub-divisions called districts, and placing them under the control of 15,000 different persons as officers. The districts are made and continually changed, as individual or selfish interests prompt, and often at the sacrifice of the general welfare. The multitude of officers vastly increases the chances of inefficiency and error, and local selfish considerations prevent uniformity and system. The remedy is to be found in the system in which the township is made the unit."

Arkansas.—"The township system would consolidate the funds, give better houses, better teachers, and better furniture; children and parents would be encouraged and stimulated; children would be anxious to attend with regularity, in order to complete the required course in each school."

New Hampshire.—"Under our present system it is impossible to give children in the weaker districts a proper amount of schooling, and there is danger that the education of many will not be such as to fit them for useful citizens. Really first-class teachers are beyond the reach of many of our districts, and, notwithstanding the fact that a cheaper grade is employed, the cost per scholar is in many cases out of all proportion to the advantages enjoyed." * * * "The town system gives all scholars an equal amount of schooling each year, and, on an average, at less cost."

Kansas.—"The municipal township should be the unit. The experience of other States proves that the township system of districting for purposes of taxation and management, gives certainty of annual support of school term, with a more equitable adjustment of the burdens of support—sub-districts being made, as in wards of cities, for convenience of attendance only."

Vermont.—"The district system has become burdensomely complex, and its parts have grown to be incongruous with one another—an evident sign of decrepitude.

The town system is vigorous and simple, and has shown satisfactory results in all classes of towns, proving sufficiently its adaptation to the entire State. For a full period of a generation of men it has been found that the objections usually made to the town system are not true in fact, but are simply and only the fine spun theories of unpractical or interested persons. As a matter of fact, the school district is a hindrance to the maintenance of good schools and to the improvement of all that helps to make good schools."

Wisconsin.—"Where the town system prevails, there is no desire, on the part of the enlightened friends of education, for something different; but where the system of independent districts still prevails, there is general dissatisfaction among such persons, and pages could easily be filled with statements illustrating the defects of the system. I conclude with the expression of an earnest hope that the day may not be far distant when we shall be able to make this much-needed change in our own school system."

Iowa.—"It is a remarkable fact that the small district plan of organization has grown and fastened itself upon us, against the uniform recommendations and the strenuous efforts of every man who has stood at the head of educational interests of our State to prevent it."

Ohio.—"It is unfortunate, I think, that our school system makes the district, instead of the township, the unit; for the schools would be more intelligently managed if under the control of a board selected from a whole township."

Connecticut.—"It (the Board of Education) cannot forbear on this, and every proper occasion, to urge upon the Legislature and the people of the State the desirability of consolidating districts, and substituting a town for a district organization of schools. It is believed that this change would result in providing good graded schools, with better teachers, at an equal or less expense, in place of the scattered, ungraded schools."

Dakota.—"It (the township district) has given Dakota as good a fame among the leading educators of the nation as any fact that has ever been used to advertise us favorably to the world." "There never has been an example of greater improvement in the excellence of the schools, or the good management of their affairs, in the history of free schools in the United States than that afforded under Superintendent Parker's administration of this law in that (Brookings) county." "Michigan has just pride in its University, Normal school, and many other State schools and institutions, while its high schools compare favorably with those of the most advanced States; but the district schools are the weakness of the State system. Of this there is no doubt, either within or without the State."

The defects of the district system, as expressed in the foregoing quotations, constitute the chief obstacles to the progress and efficiency of the rural schools of our own State, and could the great advantages that would accrue from the adoption of the township system of school management be thoroughly understood by the people, we are confident that such a public sentiment would be created in favor of the change as would materially hasten needed legislation in this regard.

In the last annual report of the Department of Public Instruction of this State, Superintendent Gass concludes an extended argument in favor of the township system with the following summary of benefits that would result from its adoption:

1. The organization of districts would be simplified and more easily accomplished.
2. The erection of better and more commodious school-houses would be secured.
3. Classifying and grading would be facilitated.
4. Better teachers would be more permanently employed.
5. The burden of taxation would be equalized among larger communities.
6. The public school funds would be more equitably distributed.
7. Equal educational privileges would be extended to all parts of the township.
8. School-houses would be furnished with better means of instruction.
9. Children could attend the school that was most convenient.
10. The aggregate cost of education would be diminished.
11. Fewer difficulties would arise in regard to district boundaries, which would be more permanently fixed.
12. *Nepotism* in the selection of teachers would not exist so extensively as it does now.
13. School-house sites would be better and more conveniently located.
14. The number of school officers and elections would be largely reduced.
15. Less difficulty would be experienced in securing reliable statistics and information in regard to school work.
16. Schools would not so frequently fail to receive their portion of the public school funds.

17. There would be better management and supervision of the schools.
18. Text-books could not be so easily changed.
19. The school laws would be simplified, and better understood and obeyed.

As illustrating the unequal cost of the schools in different districts, the following cases are taken from the reports of school inspectors on file in the Department of Public Instruction:

In Oakland county, in the year 1882-3, were taught fourteen schools, in which the number of pupils enrolled ranged from four to twelve. The whole number of resident pupils attending these schools was one hundred and six. An average of six months' school was taught in each district during the year at a cost of $16.50 per month. Each school averaged 7.5 scholars, and it cost $2.10 a month to instruct each pupil, or at the rate of $21 per year. Twenty-one different teachers were employed in these fourteen schools during this period, and the average length of time each taught was four months. The smallest number enrolled in any of these schools was four; three of these four were non-resident pupils, and for instructing one scholar three months it cost the district $60.

In the same county there were thirty-three schools that enrolled from twelve to twenty scholars each. There was an average of 16.6 pupils to each school. Fifty-two teachers were employed in these schools, and an average of five months was taught by each.

In Washtenaw county six schools were taught, with an average attendance of 9.8 pupils. The average cost per month for teaching each pupil was $2.00. Twelve teachers were employed, and they taught an average of 3.6 months each.

In the township of Copper Harbor, Keweenaw county, one district maintained school for 45 days, at an expense for teacher's salary of $102.38, with 4 pupils in attendance, or at a rate of $11.37 per month for each pupil.

Springdale township, Manistee county, one district paid $28 salary per month for teaching 4 children.

One district in Hill township, Ogemaw county, maintained 8 months' school, with an enrollment of 4 pupils, at an expense of $45 per month for teacher's wages.

In the township of Marion, Osceola county, one district maintained school 3 months, paid the teacher $33.33 per month, and enrolled 4 pupils.

In the township of Buckeye, Gladwin county, one district paid the teacher $57.50 per month for instructing 4 children for 4 months, and another district paid $189.50 for 7 months' instruction of 7 children, 6 of whom were non-residents.

One district of Forest township, in Missaukee county, paid $124.36 for instructing *one* pupil for 3 months.

No account has been taken of the incidental expenses incurred in these schools. The cost of instruction alone is nearly twice as much per pupil as it averages in all the graded schools of the State, including high school instruction. This condition of things is not peculiar to the counties mentioned. A similar showing could be made from nearly every county in the State. These instances illustrate the grave inequalities and unjust discriminations in the cost of instruction incident to the present system, and which would be practically adjusted by the proposed change.

The direct results that would follow the passage of the bill under consideration in the Legislature would be—

First, The consolidation of all the district schools of each township under the management of a board of inspectors; each township to be divided into sub-districts for convenience of attendance.

Second, Every child can attend the school that is most conveniently located without being subject to a charge for tuition, excepting in schools in independent districts.

Third, Boards of inspectors can purchase text-books for the use of the children of the township when authorized so to do by the legal voters of the township.

Fourth, Any graded school district at present existing in which there are not less than one hundred and fifty children, between the ages of five and twenty years, may continue as an independent district; and any sub-district containing five hundred children, or any two or more contiguous sub-districts containing five hundred children, can organize as an independent district.

There can be no question, it seems to us, of the great benefits that would inure to our common school system if the above conditions existed. To bring them about will require several important changes in the present school law. Other States have changed from the district to the township system and the results have, without exception, fully met the anticipations of the advocates of the change. There are no reasons why the same results should not follow the adoption of the township plan in

Michigan, and we earnestly commend the provisions of the proposed legislation to your thoughtful consideration.

In the following summary of the bill, the leading sections are quoted entire. In others only the leading provisions involving important changes in the present law are noted. The chapters as numbered are intended to take the place of corresponding chapters in the present law.

D. HOWELL,
O. D. THOMPSON,
Committee.

CHAPTER II.

TOWNSHIP SCHOOL DISTRICTS.

SECTION 1. Each organized civil township shall constitute one school district, and the school district system heretofore existing is hereby abolished.

SEC. 2. Defines the name and style, and the corporate powers of the township district, which are similar to those accorded to the present districts.

SEC. 3. Provides for the calling of the first meeting of the voters of each township by the existing board of school inspectors. This meeting shall organize the school district of the township by electing three trustees, as hereafter provided.

SEC. 4. Provides that the school inspectors of the township, together with the township clerk and the three trustees elected at the first or annual meeting, shall constitute the township board of school inspectors. It further provides that the board of inspectors shall organize on the second Wednesday of May; that the township clerk shall be *ex officio* clerk of the board, and the township treasurer shall be the custodian of the school funds of the township.

SEC. 5. The township district, through its board of inspectors, shall, immediately after the organization of said board, take possession of all the school-houses, lands, books, apparatus, and other property owned and used by the several school districts heretofore existing within the township. The property so taken shall be appraised by the board of inspectors, and there shall be deducted therefrom the amount of debts and liabilities of each former district. A tabular statement shall then be made and placed upon record by the township clerk, giving the number of each former district, describing the boundaries thereof, and setting forth the appraised valuation of its school property, less the amount of its debts and liabilities. At the first assessment of taxes after the taking effect of this act, and thereafter for the period of five years, there shall annually be assessed upon the taxable property of the township one-fifth of the total valuation of the school property of the township as the same shall have been appraised, less the amount of debts and liabilities, as the same shall appear on the tabular statement herein provided, and there shall annually be allowed and remitted, for the period of five years, to the tax-payers of each former district, one-fifth of the appraised valuation of the school property of such former district, less its debts and liabilities, as shown by said tabular statement, and said remission of taxes shall apply to all school taxes levied upon the taxable property of such former district in pursuance of law. If, after the fifth annual assessment of school taxes, as hereinbefore provided, there shall remain an excess of the appraised valuation of school property of any former district, less its debts and liabilities, as shown by said tabular statement, over the total amount of school taxes levied upon the taxable property of such former district during the five years, as herein provided, then such excess shall be allowed and remitted to the tax-payers of such former district in the sixth annual assessment of school taxes after the taking of effect of this act. The township district shall assume and pay all debts and liabilities of each former district of the township.

SEC. 6. The township district in which any school-house is situated that belonged to any fractional school district heretofore existing, shall, through its board of inspectors, immediately after the organization of said board, take possession of such school-house, land, books, apparatus, and other property thereto belonging. The property so taken shall be appraised by the boards of inspectors of the several townships from the territory of which said former fractional district was formed, acting in joint session, and there shall be deducted therefrom the amount of debts and liabilities of such former fractional district. Said boards of inspectors shall jointly determine what proportion of the appraised valuation of the property so taken is justly due to each of the said several townships, basing their determination upon the amount of taxable property in each part of such former fractional district, as the

same shall appear upon the last assessment roll of the said several townships, made prior to the taking effect of this act. At the next assessment of taxes, a tax shall be levied upon the entire township, taking possession of the property, which shall be equal to the interest in the property of such former fractional district, as above determined, of any township not taking possession of said property. When such tax is collected, the township taking possession of said property, shall pay to any township not taking such possession, the amount of its interest in the property of such former district, as above determined, and said amount shall be credited by such township to the property of such former fractional district, lying within the township, and applied upon the school taxes to be thereafter assessed upon such property. The township taking possession of the property shall assume and pay all debts and liabilities of such former fractional district.

SEC. 7. When any township shall be divided into two or more townships, the existing board of inspectors shall continue to act for all the townships until the same have been organized and township boards of inspectors duly elected and qualified therein. Immediately after such organization, the boards of inspectors of each of the townships shall meet in joint session and direct an appraisal of all the school property of the former township to be made. When such appraisal has been made, said boards of inspectors shall make an equitable division of the existing assets and liabilities of the school district of such former township, basing their apportionment upon the taxable property in the township divided, as shown by the last assessment roll of such former township. When a township shall be altered in its limits by annexing a portion of its territory to another township or townships, the boards of inspectors of each of the townships interested shall, immediately after such alteration, meet in joint session and make an equitable division of the assets and liabilities of the school district of the township from which the territory has been detached, basing their division upon the amount of taxable property, as the same shall appear upon the last assessment roll of such township.

SEC. 8. Provides for joint meetings of inspectors for carrying into effect the provisions of this chapter.

SEC. 9. Provides for annual and special meetings of the township district. The annual meeting shall be held on the first Monday in May in each year. Special meetings may be ordered by the board.

SEC. 10. Similar to section 17, chapter II of the present school law.

SEC. 11. Provides for challenging voters at district meetings, and is similar to section 18, chapter II of the present law.

SEC. 12. Provides for restraining and punishing disorderly persons, and corresponds with section 19, chapter II of the present law.

SEC. 13. The qualified voters in any township school district, when lawfully assembled at the first and at each annual meeting, or at an adjournment thereof, or any special meeting lawfully called, except as hereinafter provided, shall have power:

First, To elect school trustees;

Second, To vote such tax as the meeting shall deem sufficient to purchase or lease sites, or to build, hire, or purchase school-houses; but the amount of taxes to be raised in any district for the purpose of purchasing or building school-houses in the same year that any bonded indebtedness is incurred, shall not exceed, in districts containing less than fifty children between the ages of five and twenty years, five hundred dollars; in districts having between fifty and one hundred children, it shall not exceed one thousand dollars; and in districts having between one hundred and two hundred children, it shall not exceed two thousand dollars;

Third, To authorize the sale of any district school property when the same shall no longer be needed;

Fourth, To authorize the borrowing of money;

Fifth, To vote taxes for township library;

Sixth, To determine the number of months, in addition to the minimum required by law, that the schools of the district shall be maintained;

Seventh, To authorize the township board of inspectors to provide text books for use in the schools of the districts, the same to be loaned to pupils without charge;

Eighth, To authorize the establishment of a township high school;

Ninth, To give such directions and make such provisions as they shall deem necessary in relation to the prosecution or defense of any suit or proceedings in which the district may be a party, or interested.

CHAPTER III.

TOWNSHIP SCHOOL OFFICERS.

SECTION I. At the first meeting in each school district there shall be elected, by ballot, three school trustees, one for the term of one year, one for two years, and one for three years; and on the expiration of their respective terms of office, and regularly thereafter, at the annual meetings, their several successors shall be elected in like manner for a term of three years each. The time intervening between the first meeting in any school district and the first annual meeting thereafter shall be reckoned as one year. In all elections of school trustees, the chairman of the board of school inspectors, the township clerk, and one person appointed by the meeting at which the election is held, shall constitute a board of inspection, who shall cause a poll-list to be kept, and a suitable ballot-box to be used, which shall be kept open at least two hours, and said ballotings shall be conducted in the same manner as at township elections. The person or persons having received the greatest number of votes shall be deemed and declared duly elected; but if two or more persons shall have received the same number of votes for the same office, the board of inspection shall determine the choice by lot, and shall declare the same accordingly. Any qualified voter in a school district who has property liable to assessment for school taxes shall be eligible to election or appointment to office in such school district, unless such person shall be an alien.

SEC. 2. Provides for the acceptance of office and qualification of school trustees.

SEC. 3. Corresponds to sections 2 and 3 chapter III of the present law.

SEC. 4. Provides for stated monthly meetings of the board of inspectors.

SEC. 5. Provides for the purchase of record books, stationery, etc., by the board of inspectors.

SEC. 6. Requires the board to keep a record of the meetings of the board, and an account of all school and library moneys received and disbursed.

SEC. 7. Provides that the board of inspectors shall have general charge of the school property of the township. The director of the sub-district shall have immediate charge of the school property situated in the sub-district.

SEC. 8. Authorizes the township board of inspectors to purchase sites and build school-houses, and is similar to section 8, of chapter III of the present law.

SEC. 9. Requires the board of inspectors to estimate the amount necessary to be raised for the support of the schools of the district. It is similar to section 9, chapter III of the present law, the restricting clause being changed to read as follows: But in districts having less than one hundred children included in its school census, such estimate in addition to the district's share of the primary school interest fund, shall not exceed sixty cents on each one hundred dollars of the assessed valuation of the township.

SEC. 10. Provides that all moneys shall be applied for the purposes for which they are raised, and is similar to section 11, chapter III of the present law.

SEC. 11. Provides for the signing of all warrants by the chairman of the board and prohibits the drawing of warrants upon the township treasurer unless authorized at a legal meeting of the board.

SEC. 12. Provides that the board of school inspectors shall make a report to the township clerk between the first and third Mondays in September of each year, of the taxes voted by the district during the preceding year.

SEC. 13. Requires the board of inspectors to make annual reports, and is similar to section 12, chapter III of the present law.

SEC. 14. Provides for taking the school census and is similar in its provisions to section 22, chapter III of the present law, the only material change being that the census shall be taken between the fifteenth day of August and the first day of September of each year.

SEC. 15. Provides for an annual statistical report and prescribes the contents of such report.

SEC. 16. Provides that the compensation of the members of the board of inspectors shall be at the rate of one dollar and fifty cents for each day employed.

SEC. 17. Rehearses the duties of the chairman of the board, and is similar to section 20, chapter III of the present law.

SEC. 18. Prescribes the duties of the township clerk as clerk of the board of inspectors, which are similar to the duties now required of the director as prescribed in section 21, chapter III of the present law.

SEC. 19. Prescribes the duties of the township treasurer as treasurer of the board.

SEC. 20. Requires the supervisor to assess the taxes voted by the school district.

CHAPTER IV.

SUB-DISTRICTS, SCHOOLS AND TEACHERS.

SECTION 1. The board of school inspectors shall divide the township into such number of sub-districts as they may deem necessary, distinctly describing the boundaries thereof, which sub-districts they shall number, but no sub-district shall be created unless there be at least thirty children between the ages of five and twenty years residing upon the territory of the proposed sub-district.

SEC. 2. Provides for calling the first meeting of the voters of the sub-district.

SEC. 3. Provides for the election of a director at the first meeting, and annually thereafter on the first Monday in September.

SEC. 4. Prescribes the duties of the director.

SEC. 5. The township board of school inspectors shall provide and maintain one or more schools, as may be necessary, in each sub-district of the township, for at least six months in each school year, on pain of forfeiture of the township's share of the apportionment of the primary school interest fund. All schools in the township district shall be maintained an equal length of time. The school year shall begin on the first Monday in September, and a school month shall consist of four weeks of five days each, including all legal holidays that may occur during the progress of the schools. No school shall be taught on the seventh and first days of the week, commonly called Saturday and Sunday.

SEC. 6. Provides for the employment of teachers by the board of inspectors.

SEC. 7. Provides that the board of inspectors shall prescribe the studies to be pursued and the text-books to be used, which shall be uniform in each subject taught.

SEC. 8. The board of inspectors shall purchase, at the expense of the district, such text-books as may be necessary for the use of the children whose parents or guardians are not able to furnish the same; and said board shall also purchase, when authorized by the voters at any school district meeting, all necessary text-books for the use of all pupils in the several schools of the district. Any text-books purchased as provided herein shall be the property of the district, and shall be loaned to pupils free of charge, under such rules and regulations for their careful use and return as said board may establish. The amount of funds required to make such purchase of text-books as herein provided, shall be included in the report to the township clerk of taxes, and the same shall be levied in like manner as other taxes.

SEC. 9. The board of inspectors shall cause all pupils attending the schools of the township to be classified according to their intellectual progress, and to cause them to be taught in such schools or departments as they may deem expedient; but no separate school or department shall be kept for any persons on account of race or color.

SEC. 10. All persons who are not less than six years of age shall have an equal right to attend school in the sub-district in which they may reside, and in case any pupil can be better accommodated at a school in an adjoining sub-district within the same township, the board of inspectors shall, upon application, grant permission to such pupil to attend such school; or in case any pupil can be better accommodated at a school taught in (the sub-district of) an adjoining township, he may be transferred for educational purposes to such adjoining township as hereinafter provided. In no case shall any resident of the State be required to pay tuition for attendance at any of the common (sub-district) schools taught within the State.

SEC. 11. When in the judgment of the board of inspectors, any pupil can be better accommodated at a school in an adjoining township, at the request of the parent or legal guardian, the board of inspectors of the township in which such pupil resides, shall transfer said pupil for educational purposes to such adjoining township, and shall, at the same time, send notice of such transfer to the board of inspectors of the township to which such pupil is transferred and also to the director of the sub-district in which such pupil shall attend school. Whenever pupils have been transferred for educational purposes, the board of inspectors of the township to which the transfer is made shall, through its chairman and clerk, make out and present to the board of inspectors of the township making the transfer, a sworn statement of the amount due for the tuition of such transferred pupils and the board of inspectors receiving such statement shall immediately order the township treasurer of their township to pay such amount to the treasurer of the township whose board furnishes such statement, which amount shall be paid on demand from the school funds of the township. The amount of tuition of transferred pupils shall be determined by dividing the total current expenses of the schools of the township in which such transferred pupils

attend school, by the average number of pupils belonging to such schools, as the same shall be shown by the records for the school year last closed.

SEC. 12. The board of inspectors shall establish and maintain a high school when ordered by a vote of the district at an annual meeting, and shall determine the qualifications for admission to such school.

SEC. 13. Provides that the board of inspectors shall have the general care of the schools, and shall make and enforce suitable rules for their government.

SEC. 14. Requires a report to be made to the township clerk by each teacher at the expiration of each term and prescribes the contents of such report.

CHAPTER X.

INDEPENDENT DISTRICTS.

SECTION 1. Any graded school district heretofore organized, having not less than one hundred and fifty children between the ages of five and twenty years, may, by a two-thirds vote of the qualified voters present at a meeting called for the purpose by the existing board of trustees of such district, within 20 days after the taking effect of this act, be continued and constituted an independent school district, and the board of trustees shall immediately and within ten days after such action has been taken, notify the township board of school inspectors of the same by filing due notice of such action with the township clerk. The trustees heretofore elected and qualified in any graded school district so voting shall continue to act as such trustees for the time for which they were elected, and in the year 1885, there shall be elected two trustees for the term of three years; in the year 1886, one trustee for the term of three years, and in the year 1887, two trustees for the term of three years, and annually thereafter there shall be elected one or two trustees, as the case may be, whose terms of office shall be three years respectively.

SEC. 2. Provides that any sub-district containing not less than one hundred and fifty children between five and twenty years of age, may organize as an independent district, the conditions being similar to those provided in the preceding section.

SEC. 3. Provides that any two or more contiguous sub-districts containing together more than one hundred and fifty children between the ages of five and twenty years, may organize as an independent district under conditions similar to those prescribed in section 2 of this chapter.

SEC. 4. Prescribes the name and style of an independent district, and confers certain corporate powers.

SEC. 5. Provides for the organization of boards of trustees of independent districts, and the requisites for qualification of members of such boards.

SEC. 6. When an independent district has been formed out of the territory of any township or townships as herein provided, the remainder of such township or townships shall constitute the school district or districts of such township or townships. The boundaries between any township district and independent district may be changed by the concurrent action of the board of inspectors of the township and the board of trustees of the independent district; and the organization of any independent district may be abandoned by a majority vote of the school voters of such independent district present at an annual meeting of such district, when the intention to take such vote has been expressed in the notice of such annual meeting. Whenever the organization of an independent district has been so abandoned, due notice of such action shall be filed by the clerk of such district with the township clerk, and immediately thereafter the board of inspectors of the township in which any part of such district is situated, shall take possession of all the property of such district situate within their township, and the territory of such former independent district lying within the township shall become a part of the township district, and shall be subject to the full control of the board of inspectors of the township.

SEC. 7. Any independent district formed under the provisions of this chapter shall possess like powers to those granted by law to township districts, and shall be governed by the same provisions of law, except as may be otherwise provided, and the board of trustees of such district shall be charged with the same duties and responsibilities within their districts as are required of the board of inspectors of a township district, except as may be otherwise provided by law. Like reports to those made annually by the township board of school inspectors shall be made by the boards of trustees of independent districts, in duplicate, one copy of which shall be filed with the clerk of the board, and the other filed with the township clerk on or

before the first day of September of each year, and the same shall be incorporated in the annual report of the board of inspectors, hereinbefore provided.

SEC. 8. When an independent district is situated in part in two or more townships, it shall make its annual reports to the board of inspectors of the township in which its school-house is situated; or if it has school-houses situated in more than one township, the board of trustees of such district shall, immediately after its organization, determine to which township board of inspectors its annual reports shall be made, and shall certify the same to the township clerk, and thereafter for the purpose of apportioning the public moneys, an independent district shall be considered as within the township to which its annual reports are made; and such districts, if numbered, shall be numbered by the inspectors of such township.

SEC. 9. When an independent district is situated in part in two or more townships the full amount of all taxes to be levied upon the taxable property in such districts shall be certified by the board of trustees to the township clerk of each township in which such district is in part situated, and by such township clerks to the supervisors of their respective townships, and it shall be the duty of each of said supervisors to certify to each other supervisor interested, the amount of taxable property in that part of the district lying in his township: *Provided*, That where there exists a manifest difference in the valuation of property assessed in independent districts, composed of territory in adjoining townships or counties, such valuation shall be equalized for this specific purpose by the supervisors of the townships interested, at a joint meeting held for that purpose, on application of either of the supervisors of said townships. Such supervisors shall respectively ascertain the proportion of such taxes to be placed on their respective assessment rolls, according to the amount of taxable property in each part of such district.

The remaining sections provide for the adjustment of money interests between independent districts, and for the reports of independent districts.

TEACHERS' INSTITUTES.

The value of these local professional schools is yearly being recognized more generally by the teachers of the State, as is shown by the annual increase in the enrollment. The sentiment of instructors is constantly tending to more class work, and this sentiment has been recognized very generally in the institute work of the past year with most favorable results. Heretofore the length of the session has been considered too brief to admit of a practical demonstration of the good results that follow the adoption of class work, and the condition of the county institute funds would not admit of longer sessions. During the past year the fund has increased sufficiently in several counties to warrant a longer session, and accordingly a two weeks' institute was held in each of the following counties: Calhoun, Ingham, Jackson, Kalamazoo, Kent, Lenawee, and Oakland. At these institutes class drill was made a prominent feature of the work, and with the most satisfactory results. The testimony of instructors is substantially unanimous in favor of a two weeks' session with practical class drill in the various subjects presented. Prof. Austin George, referring to the two weeks' institute held at Kalamazoo, says: "This institute was, I understand, considered a great success by the teachers in attendance and by the county board. It was conducted on the plan of class work mainly, though each half day one general exercise was given before the entire institute. I think the scheme a good one, with some modifications."

Mr. H. R. Pattengill, who conducted the two weeks' institute in Ingham county, recommends more class work, to give a practical demonstration of the methods by actual classes, and if a two weeks' institute is held, considerable drilling in the various branches. Whenever possible, a two weeks' institute should be substituted for one. Experience has abundantly fulfilled the anticipations of those who have advocated longer sessions and more academic work, and where the fund is sufficient to meet the expense, this plan should be

followed. Even where it is impracticable to continue the session beyond one week, a considerable portion of the time should be devoted to class drill. While more time is necessary to the best results in this work, it has been demonstrated during the past year that better satisfaction is given where class work supplements the lectures.

The number of instructors in the State available for institute work is increasing annually, and at present the force is fully adequate to the requirements. The eminent success of many of the more experienced of our institute workers is recognized beyond the limits of the State, and their services are in demand in many other States. The good results of their work is apparent in the improved character of the teachers of the district schools and the increased public interest in educational matters that almost invariably follows in localities where institutes have been held.

One cause of complaint that is very justly made in some counties, is the lack of interest in the institute on the part of the county examiners. Of course this criticism does not apply to all counties. In many, the examiners have heartily seconded the efforts of the instructors, and, as a natural result, have added greatly to the success of the institute. But as a rule the examiners have failed to take any special interest, and in some cases have expressed decided opposition to any institute work in their county. This action is very much to be deplored, as it cannot help but lessen the influence of the institute. They are naturally regarded by the teachers as under a moral obligation to assist any movement that promises to advance the cause of education in their county, and the fact that they ignore the institute is, to many teachers, a tacit expression of their disapproval of this work. This action tends to lessen the enrollment, to repress public interest, to discourage instructors, and has proved, in many counties, the chief obstacle to the highest success of the institute. The examiners in each county have it within their power to very largely extend the influence of this work, and there seems to be no valid reason why they should not exercise this power, at least, to the extent of attending during a portion of the session.

The total number of teachers required to supply the schools of the sixty-eight counties in which institutes were held during the past year, was 9,128.

The total number of teachers enrolled at all the institutes was 6,361, or nearly 70 per cent. of the number required in the counties. Of the teachers in attendance, 3,709, or over 50 per cent. held third grade certificates; 1,613 were without previous experience in teaching; and 1,706 had received some normal instruction. As usual, the majority of those benefited by the institutes are those teachers who would have been unable to have availed themselves of any other means of obtaining normal instruction. Unquestionably the qualifications of those 4,655 teachers who had had no previous professional training whatever, were materially improved by their attendance at these institutes.

The total expense of the sixty-eight institutes was $9,800.35, or an average cost of about $1.54 for each teacher enrolled. The total attendance at the two weeks' institutes that were held was 1,135, and the total cost of these institutes was $2,118.42, or an average of $1.88 per capita of the enrollment. This is certainly a very moderate outlay when it is considered that by this means the teachers are made familiar with the most approved methods of school work, presented by persons of experience as teachers and of acknowledged ability as institute instructors.

In arranging for institutes, this Department is frequently requested to select

the instructors from among the teachers of the county in which the institute is to be held. Heretofore these requests have been complied with in most cases where it has been practicable. As a rule, the result has not been satisfactory, even to those making the request. Of course there are some cases where excellent results have followed the appointment of local workers, but generally those institutes have been the most successful which have been conducted by instructors appointed from outside the county.

In arranging for institutes, this Department is seriously embarassed by reason of so many counties selecting the same week or weeks for holding their institutes. During the past year, 43 institutes were held during the last two weeks of August. It was manifestly impossible to comply with all the requests regarding the assignment of instructors, and consequently there was some disappointment in this regard. If the times for holding the institutes could be more evenly distributed throughout the year, it would result in much more general satisfaction in the appointment of persons to take charge of them.

Comparative Statistics.

A study of the comparative school statistics for the past two years, which are summarized in Table I, affords an intelligent understanding of the relative progress of the public schools during the past year. The showing is very encouraging, and indicates that the common schools have made satisfactory advancement in every respect during 1884.

The number of new districts organized was 96, of which 4 were graded. The number of districts that maintained school in 1884 exceeded the number for the preceding year by 111, or 15 more than the number of new districts formed. The total number of school districts in the State was 6,815, of which number 6,728, or nearly 99 per cent. maintained school. The number of children of school age in the State was 577,063, an increase of 16,333 over the school census of 1883, while the attendance increased 13,356 during the same period, reaching a total of 404,966. A comparison of the reported increase in the census and the increase in the enrollment in the graded and ungraded schools, shows that while 72 per cent. of the total increase in the census came from the former class, 71 per cent. of the increased enrollment was in the ungraded districts. There have evidently been some errors in the reports of the enrollment. Both the census and the number of teachers required, indicate a larger increase in the enrollment of the graded schools than in the ungraded, whereas a comparison of the reports for the two years shows the reverse to have been the case. There has unquestionably been a large increase in the attendance upon the rural schools, due chiefly to the improved condition of these schools. No more practical evidence than this can be furnished of the wisdom of the change in the law which transferred the examination and certification of teachers from the Township Superintendent to the County Board of School Examiners. Better teachers, improved schools, and a largely increased enrollment has been the direct result of the change.

The number of teachers required to supply all the schools was 9,480, an increase of 323 over 1883. Of this number, 235 were added to the graded schools. As the increase in the number of graded schools was only 4, a large proportion of the additional teachers required was the result of the increased enrollment in the city schools, necessitating an increase in the teaching force of these schools.

The wages of teachers are increasing yearly. During 1884 the average

monthly wages of male teachers was $77.78 in graded schools and $36.59 in ungraded, an increase of $2.59 and $2.54 respectively over 1883. The female teachers averaged $38.11 per month in the graded, and $25.25 in the ungraded, an increase of $0.55 and $1.29 respectively.

The financial condition of the schools is highly satisfactory. While there has been an increase of 163 in the number of school-houses, and of $509,318 in the value of the school property of the State, the total indebtedness of the districts has increased but $19,918.49, and the amount due the districts was $17,144.82 more in 1884 than in 1883. The indebtedness of the ungraded districts has *decreased* $31,112.10.

There has been an increase during the year of 61 in the number of school libraries, and the number of volumes added has been 19,904. The importance of the library as a factor in all grades of educational work is recognized in the general school law of the State, which provides for the establishment and maintenance of a township library in each organized township. This provision is obligatory, but the fact that only 460 of the 1,100 townships of the State return any library statistics, indicates that this provision is but very partially complied with. In many of the larger graded districts liberal annual appropriations are made for the support of libraries, and a majority of the city schools are provided with well selected libraries.

During the year, 68 State Institutes were held. The total enrollment at these institutes was 6,361, an increase over the attendance for the preceding year of 603. The total number of teachers required to supply the schools in the counties where institutes were held was 9,128, nearly 70 per cent. of whom were in attendance upon the institutes. The total cost of these institutes was $9,800.35, of which amount $1,800 was paid by the State. The experiment of holding a two weeks' institute was continued in several counties with very gratifying results.

The statistics relating to private schools are very incomplete and unreliable. In many cases the number of such schools is given, but the number of teachers is omitted. Often incorporated schools and denominational colleges are included, and other errors and omissions which render these returns very unsatisfactory. A comparison of the reports for the past two years shows an apparent increase of but one in the number of schools, while the increase in the number of teachers and pupils was 217 and 4,559 respectively. This wide discrepancy is undoubtedly due to errors in reporting one or more of these items in the returns for 1883. The statistics for 1884 are probably approximately correct as far as reported, and the actual number of children attending private schools the past year, without doubt, reached the figures reported, 27,130. This would make a total enrollment in both public and private schools of 431,911, or nearly 75 per cent. of the children of school age in the State.

Educational Funds.

The Primary School Funds.

The moneys derived from the sale of school lands, and from escheats to the State, constitute the Primary School Fund *proper*, and bear seven per cent. interest. One-half the cash avails of the sale of swamp lands are also set apart as a school fund, bearing five per cent. interest, and this is called the Primary School five per cent. Fund. The income derived from each of these

Funds, together with what is collected from trespassers upon Primary School Lands and the surplus of specific taxes remaining in the State treasury, after paying the interest on the several educational funds, and the interest and principal of the State debt, forms the Primary School Interest Fund, the entire amount of which, that may be on hand at the time, is apportioned to the school districts of the State about the first of May in each year.

The condition of these funds for the fiscal year ending September 30, 1884, is shown in the following statement:

Primary School Fund:	
In the hands of the State	$3,124,810 60
Due from purchasers of lands	310,838 26
Total seven per cent. fund	$3,435,648 86
Interest paid by the State	217,010 89
Interest paid by holders of lands	23,521 46
Total income	$240,532 35
Primary School five per cent. Fund:	
In the hands of the State	$359,575 87
Income	17,761 01
Total school funds	$3,795,224 73
Total income from both funds	258,293 36
Surplus of specific tax transferred	438,665 68
Paid by trespassers on Primary School Lands	1,274 09
Total Primary School Interest fund	$698,232 13

The University Fund.

This fund is derived from the sale of lands granted to the State by the General Government for the support of a university, and draws interest at seven per cent. The amount to the credit of this fund, September 30, 1884, together with the income derived from the same, is as follows:

In the hands of the State	$495,822 72
Due from purchasers of lands	48,808 94
Total fund	$544,631 66
Interest paid by the State	34,618 66
Interest paid by holders of lands	3,793 17
Total income	$38,411 83

The Agricultural College Fund.

This fund, derived from the sale of lands granted by the State and by the General Government for the support of the College, draws seven per cent. interest. The state of the fund at the close of the last fiscal year was as follows:

In the hands of the State	$272,327 40
Due from purchasers of lands	150,738 49
Total fund	$423,065 89
Interest paid by the State	18,739 02
Interest paid by holders of lands	9,340 89
Paid by trespassers on Agricultural College Lands	51 16
Total income	$28,131 07

The Normal School Fund.

This fund, bearing six per cent. interest, is derived from the sale of salt spring lands granted by the State for the support of a normal school. The condition of this fund and its income at the close of the fiscal year was as follows:

In the hands of the State	$61,284 81
Due from purchasers of lands	7,841 23
Total fund	$69,126 04
Interest paid by the State	3,661 51
Interest paid by holders of lands	626 69
Total income	$4,288 20

STATE INSTITUTIONS.

The University.

The past year has been a prosperous one for the University. The attendance during the year numbered 1,377 in all departments, a decrease of 63 over the previous year. This decrease is confined entirely to the professional schools, and is due principally to the more stringent requirements for admission and graduation. The lengthening of the terms of these departments, while tending to lessen the attendance, adds very materially to the thoroughness of the instruction. More time is given to individual instruction, and the instructors are better able to learn the relative capabilities of the students, resulting in the exercise of greater discrimination in granting diplomas than was possible under the short term. The standard of graduation has been raised in all departments, so that now a diploma from any one of the professional schools of the University is an assurance that its possessor has completed as thorough a course of professional training as is furnished by any similar school in the country.

The plan of admitting graduates from approved high schools of the State to the literary department, was extended the past year to include high schools of any State whose course of study shall be approved by the faculty. It is anticipated that this extension of the privilege will tend to increase the attendance from other States without injury to the high schools of Michigan.

It is a matter of congratulation to note the yearly increase in the number and value of private bequests to the University. During the past year the gifts have been especially numerous and valuable. By a provision of the will of the late Henry C. Lewis, of Coldwater, the large collection of works of art composing the Lewis Art Gallery becomes the property of the University upon the decease of his widow, or sooner if she should so desire. This gift is by far the most valuable of the many private gifts to the University. Mr. Lewis was engaged nearly twenty years in making the collection, which embraces copies of the principal works of the old masters, besides many of the best works of the leading modern artists. It is conceded to be one of the finest private galleries in the country.

The princely gift of Mr. Lewis has been supplemented by donations of many rare and costly works to the library; machinery, tools, etc., exceeding in value $1,500, to the mechanical laboratory, besides many valuable contributions of pharmaceutical preparations from a number of manufacturing chemists. Beyond the direct value of these gifts as material additions to the facilities for instruction, is the evidence of the high regard in which the University is held. Its benefactors are not confined to the citizens of Michigan, but are scattered throughout the country. I feel assured that the State will encourage a continuance of these private benefactions by a generous recognition of the requests of the Board of Regents for aid.

The changes in the faculties during the year are noted in the report of the President. The resignation of Judge Thomas M. Cooley, who has been a member of the law faculty since that department was established in 1859, is regretted by all friends of the University. His eminence as a jurist and author, together with his success as a lecturer and instructor, have given the law school a more than national reputation. H. B. Hutchins, Ph. B., a graduate of the literary department of the University in the class of 1871, succeeds to the chair vacated by Judge Cooley.

The University system inaugurated a few years ago, continues to be commended by the faculty and regents. The plan of allowing greater freedom in the choice of studies is productive of much better results than the old class system. The change from classes to courses entailed considerable additional expense by necessitating the employment of a larger teaching force, but the results obtained have more than compensated for the extra outlay.

The necessity for increasing the available funds at the disposal of the board of regents is becoming imperative. The committee on finance in their last report say: "The financial condition of the University is such that it is only by the most rigid economy in all departments, and by the exercise of excellent judgment on the part of the auditing board, that we can hope to keep the expenditures within the receipts. As the University is at present organized, its ordinary receipts are all absorbed in meeting current obligations, and nothing is left for the board to use in the way of adding to the facilities offered—scarcely enough, indeed, to maintain the present standard. Unless relief is obtained from some quarter, it will be impossible for the University to keep pace with the State's and the country's progress, or to long retain the high position it now holds among the educational institutions of the country. The committee are satisfied that no reduction in the present scale of expenditures is possible without seriously crippling the efficiency of the University, and that it is the duty of the board to do all in its power to secure for the University an immediate and permanent increase of revenue."

The very full and exhaustive report of the board of regents prepared by Regent George Duffield, published with the documents accompanying this report, recites at length the needs of the University and clearly and satisfactorily explains the necessity of such aid as is asked of the Legislature.

The requests of the Board are entitled to a generous consideration as embodying the conclusions arrived at from a careful and faithful study of the condition and necessities of the institution entrusted to their care. Referring to this point the report very properly says: "To what extent they (the Board) have been faithful to the trust committted to them by the people, let the record speak for itself, as found in the published minutes of their proceedings for the current year. But their fidelity once admitted and their official action approved, it will follow as a natural inference, that their suggestions in this report are not those of mere routine. So far from being hasty, they are rather the result of mature deliberation. They have a real historic meaning; they have a distinct and definite aim in present existing circumstances; they are designed to serve a very important purpose in the future."

The financial affairs of the University have always been managed with the most rigid economy consistent with the best interests of the institution, and I believe no one of the higher institutions of learning in the country gives as good results for the available funds as Michigan University. The character of the gentlemen composing the several faculties, the breadth and thoroughness of the instruction offered, the completeness of its facilities for practical illustration afforded by its libraries, museums, laboratories, observatory, etc., which have made this institution the rival of the best of European universities, afford abundant evidence of the care and intelligence exercised by the authorities to whom the management of this trust has been delegated. I trust that the present legislature will provide some means by which the available income from productive funds may be made sufficient to meet the increasing needs incident to a healthy growth.

The general library is constantly growing in value. During the past year there were added by purchase and donation, 6,754 volumes and 850 pamphlets. The library now contains 44,880 bound volumes and 10,020 pamphlets.

The several reports of the President, Board of Regents, etc., included in the documents accompanying this report, comprise a very complete showing of the present condition of all the departments of the University.

The Agricultural College.

The year just closed marks an important era in the history of the College, by reason of the retirement of Dr. T. C. Abbot from the presidency. President Abbot entered upon his duties as President of the College in 1863. The attendance at that time numbered 60, including students enrolled in the preparatory course. The faculty consisted of six professors and instructors and included a professor of Zoölogy; an instructor in Botany and Horticulture, who also acted as superintendent of the gardens; an instructor of the preparatory class; a professor of Chemistry; an instructor in Mathematics, while the President of the College filled the chair of History and English Literature. During President Abbot's term of office the attendance has grown to 171, and the corps of instructors has increased to 17 members. Four new pro-

fessorships have been established and assistants have been appointed in the departments of Chemistry and Horticulture. His administration of twenty years, while not marked by any radical change in the character or work of the College, has been a period marked by a moderate but constant growth in attendance and a wise but conservative policy in adding new courses of study, and otherwise enlarging the scope of the school to meet the continually increasing requirements of an institution of this character. The fact that the school is primarily intended to impart instruction in the sciences more closely allied to Agriculture has been considered at all times, and the fact that Michigan Agricultural College occupies a leading position among the Agricultural schools of the country, is due in no small degree to the careful and intelligent oversight of President Abbot. His service has been a long and faithful one, and he retires from the high position he has so honorably filled, assured of the respect and affection of the *alumni* and students of the College, and his associates in the faculty, and the gratitude of all friends of education in Michigan, for his faithful administration of the office entrusted to him.

Dr. Abbot does not entirely sever his connection with the College, but will fill the chair of History and Political Economy left vacant by the resignation of Prof. Harrower.

The State Board of Agriculture at a meeting held in March decided to admit, without examination, graduates of graded schools having a regular course of study which shall be approved by the faculty or the Board. It was made the duty of the Secretary of the Board to visit such schools as express a desire to avail themselves of this privilege, with authority to determine whether the requirements have been fulfilled. The plan of admitting graduates of certain high schools in the State without examination, has been tried with success in the University, and I have no doubt that the action of the Board above referred to will add materially to the number of students without lowering the standard of scholarship.

The appointment of a librarian who can devote her entire time to the library, is a very wise change. Heretofore, the librarian's duties have been performed by some member of the faculty in addition to his work as instructor. As a result the library has not been made as available to the students as it is hoped it will be under the supervision of a librarian whose time and thought are not devoted to other labors. The work of cataloguing the library is progressing as rapidly as possible with the facilities at the command of the librarian. It is very desirable that the catalogue be completed as soon as possible, as a most necessary condition to the greatest usefulness of a public library is the completeness and intelligent arrangement of its catalogue.

The growth of the library is hardly commensurate with the improvements in other departments of the College. During the past year the total additions have been 144 bound volumes and 55 pamphlets. During the same period the library of the Normal School was increased by the addition of 1,216 volumes, and the University received 6,754 bound volumes and 850 pamphlets. The necessity for better provisions being made for additions to the College library are apparent from the above comparison.

The courses of study have been rearranged with the view of allowing greater freedom in the choice of studies during the last year of the course. Seniors are permitted to select three out of five studies, giving each an opportunity to pursue such branches as best suit his tastes, or are most directly concerned with the profession or business he intends to follow.

It is the intention of the Board of Agriculture, in the near future, to enlarge and perfect the facilities for instruction in the Mechanic Arts, thus more fully complying with the conditions of the Congressional grant from which the larger portion of the revenues of the College is derived. The act of Congress appropriating lands to aid the establishment and maintenance of Agricultural schools, provides that the interest derived from the fund accruing from the sale of these lands, shall be applied to the support of schools where the leading object shall be to teach such branches of learning as are related to Agriculture and the Mechanic Arts. It has been charged that only a part of these conditions has been complied with; that the purpose of the College has been to impart instruction in branches related to agriculture; that the school is distinctively agricultural; that the Mechanic Arts have been taught only as subordinate and incidental to the science of Agriculture. However well grounded these charges may be, it is the purpose of the Board to make instruction in the mechanical and industrial arts equally prominent in the curriculum with instruction in agriculture, the ultimate design being to establish a thoroughly equipped polytechnic school which shall afford opportunity for practical study of civil and mechanical engineering and all industrial pursuits. The duty of the State to furnish instruction of this character was recognized by Congress in the act referred to, and the evident purpose of the grant was to enable the several States to provide for such instruction, and a literal fulfillment of the contract implied in the conditions of the grant would seem to demand such action of the Board as is contemplated.

Normal School.

The number of teachers who avail themselves of the opportunities for professional instruction offered by the Normal school, increases annually. Last year the attendance reached 475 in the normal department proper, an excess of 77 over the previous year. Of this number more than 100 were graduates of high schools, graded schools, and other institutions approved by the faculty. Over 50 per cent. of the new students had taught school for periods varying from five weeks to twelve years. This disposition on the part of teachers of experience to familiarize themselves with the best methods of imparting instruction as exemplified in the practice school, is evidence that the practical value of normal instruction is becoming more generally appreciated. The demand for graduates of the Normal school on the part of school officers is constantly increasing, and the fact that of the 102 who graduated last year 94 are now engaged in teaching is the best possible commentary upon the thorough manner in which this institution is performing its mission, besides showing the importance of a course of normal training as an aid to securing a desirable position. The need of technical training in the profession of teaching is more generally recognized each year, and this fact together with the constant growth and improvement in the facilities for professional instruction at the Normal school, is adding to its influence and importance as one of the leading State institutions.

The large annual increase in the number of students calls for enlarged accommodations. The study rooms are inconveniently crowded at present, and more room is imperatively demanded to meet the present requirements of the school. There is every reason to suppose that the increase in attendance will continue to be proportionally great for several years to come, and the recommendation of Principal Willits that any proposed addition should be

made with a view of providing for the future necessities of the school, is the result of a careful study of the present condition and future possibilities of the institution, and has met the approval and endorsement of the State Board of Education. I commend this matter to the earnest consideration of the Legislature, together with the other suggestions of the Principal, as contained in his report published in another part of this volume, as the opinions of a gentleman who has given close and intelligent study to the problem of normal instruction and how to attain the best possible results through the medium of the State Normal School.

Another matter that will soon have to be considered is the insufficiency of the funds available for current expenses. The permanent fund for the support of the University yielded last year an income of $38,410.43. The Agricultural College received from a corresponding source $27,000, while the Normal school received but $4,200 from this source. The insufficiency of the permanent income of the University was recognized as long ago as 1873, at which time the Legislature passed an act imposing a tax of one-twentieth of a mill on the taxable property of the State to increase the permanent income of the institution. The rapid growth of the University rendered this action imperative. Even with this accession the income is far from meeting the growing needs of the University. Since 1873, the attendance at the Normal school has increased more than 44 per cent., while the income from the Normal school fund has increased less than one hundred dollars. No one who has watched the marvelous growth of the University during the past ten years will question the wisdom of the action of the Legislature in granting the aid that has made this growth possible. Would it not be equally just and expedient to provide in some similar way for the wants of the Normal school? I believe the wisdom of such action would soon be made apparent in the still more rapid development of the possibilities of the school.

The report of Principal Willits shows the school to be in excellent condition. The chair of English Language and Literature has been filled by the appointment of Rev. Theodore Nelson, late acting President of Kalamazoo College. Other changes in the corps of instructors are noted in the Principal's report.

During the year, 1,216 volumes have been added to the library, and a card catalogue by authors and titles has been completed which adds greatly to its usefulness. A well assorted library, carefully catalogued, is one of the most important adjuncts to educational work, and the $1,500 annually appropriated for library purposes is a very wise investment.

Great improvements and additions have been made to the museum during the year. The various specimens have been labeled and arranged in their proper orders and classes by the instructor and students in natural history, so that the collection is easily accessible to students in this department. A set of Ward's plaster casts of paleontological specimens has been added to the museum during the year, and contributions to the several departments have been received from friends of the institution.

The plan of admitting without examination graduates from high schools and such other institutions as are approved of by the faculty, has been modified to the extent of requiring from all applicants for admission an examination in those branches required for a third grade certificate. The necessity of this course is shown by the fact that of the 232 students admitted last year, over one-half failed in one or more of the primary branches.

A very complete showing of the condition and needs of the school is given

in the accompanying reports of the State Board of Education and the Principal.

School for the Blind.

The general aim of this institution is to afford a common school education supplemented by a sufficient amount of industrial training to make the pupils self-dependent upon leaving the school. The instruction is necessarily mostly oral, and of elementary character. The success of the pupil depends largely upon the memory, and the cultivation of this faculty is constantly held in view. A certain amount of out-door exercise is made obligatory, and the general health of the pupils is carefully looked after.

As has been the custom heretofore, considerable time has been devoted to musical instruction, as offering the most practical benefit to the majority of the pupils. The success of this department has been very marked in the past, and many of the pupils have obtained good situations upon leaving school. During the past year over 50 per cent. of the students received instruction in either vocal or instrumental music.

Needle work continues to be the chief occupation of the girls, instruction being given in machine and hand work. The boys seem to attain the most success in broom-making, the product of the school ranking with the best in the market. Over 290 dozen brooms were made during the year, and were all readily disposed of.

The success of industrial education in schools of this character has been very marked, when the great disadvantages under which these unfortunates labor is taken into consideration. While we have no data from which to determine the present condition of the former inmates of the Michigan School for the Blind, Superintendent McElroy says in his report: "An investigation several years ago by a committee of instructors of the blind in this country, although hastily and imperfectly made, revealed the fact that over six hundred graduates of schools for the blind are earning a competent support as piano-tuners, teachers of the voice and piano, and as organists in churches."

The number of pupils the past year was 70, an increase of two over the previous year. Several changes in the corps of instructors are noted in the Superintendent's report.

Reform School.

The continued increase in the number of commitments to the Reform School demands increased accommodations, and an appropriation of $18,000 is asked for the erection of another double cottage. The attendance last year reached 440, and the addition called for will increase the capacity of the school to 500, which is regarded by the Board and Superintendent as the maximum number of inmates that should be included in one institution. As this limit will soon be reached, some provision must be made elsewhere for the natural increase of this class. The great value to the State of youthful reformatories is generally recognized, where the character of the institution is primarily reformative and not punitive. This is the controlling idea in the management of the Michigan school, and the beneficent results that have accrued to society from its work is very marked. Study and healthful employment are the best antidotes as well as preventatives of crime, and it is the policy of the Reform School to supplement a course of instruction in the common school branches with a reasonable amount of manual labor. As a result, a large percentage of

those who have been released from the institution are leading reputable lives. Is it not reasonable to assume that a majority of these would have continued in vicious ways had not the State, through the medium of this institution, revealed to them the possibilities that industry offers to every boy?

The average number of months boys remained in the institution during the past year was twenty-three, an increase of two months over the previous year. The advisibility of limiting the period of detention is recognized by the Superintendent, and it has been his policy to constantly shorten the term of residence of the inmates. The cause of the increased average the past year is attributable to the difficulty in finding suitable homes for the boys, owing to the stringency of the times. Probably an additional reason can be found in the fact that the people of the State are yearly becoming more familiar with the Public School at Coldwater, and persons who are willing to take children into their homes prefer those who are innocent of any offense or crime. This difficulty in indenturing boys from this school will undoubtedly increase, rendering a shortening of residence at the institution impracticable, giving added weight to the recommendation of the Superintendent that other trades and mechanical industries should be introduced. If the boy cannot be furnished a home he should be made self-dependent upon leaving the school. Nearly every boy who has gone from the institution with a trade has done well, and all those who fail or lapse into evil ways come from those who had no industrial training. With the present facilities, an average of 50 boys are annually sent out who are capable of earning a living from the first, and by enlarging the number of trades, still more satisfactory results would accrue.

The matter of more efficient local effort in finding homes for the boys, is an important matter which is discussed at length in the report of Superintendent Gower. The county agents of the State Board of Corrections and Charities are doing excellent service, much out of proportion to their compensation. To carry into effect the policy of both the Reform School and the State Public School, requires constant effort to secure homes for the inmates of each. The best results in this regard can only be obtained through constant local effort on the part of county agents. The nominal compensation allowed these officers will not admit of their devoting a sufficient amount of time to this work. Superintendent Gower's remarks on this point are timely and deserving of consideration, as embodying the experience of a most efficient and successful worker in this branch of social science. He says: "We feel, therefore, warranted in urging the importance of more efficient local assistance in caring for the boys who have received from the institution all the benefit it is capable of bestowing. As it now is, many boys are kept in the school long after its work has ceased to be of any special value to them, simply because to release them would be to set them adrift with no one to assist or encourage them, in which case they would almost surely relapse into evil ways and soon again become the wards of the State, either in this or some other institution.

Under the most favorable circumstances, an institution furnishes but limited opportunities for the development and exercise of individuality on the part of its inmates. Whenever, therefore, a boy shows that he is ambitious to do right, and by his perseverance in well doing has proven his ability to do right under favorable circumstances, we think it for his highest good and for the best interests of the State that he be provided with the best home possible, where every laudable ambition can be encouraged, and where his individuality, under proper guidance, can assert itself. I am thoroughly convinced that one

of our most pressing needs is finding homes for our boys, and in caring for them after being placed in these homes."

The pre-eminent reformatory influence of pure home surroundings is beyond question, but until the problem of how best to enlarge this influence to its fullest extent is solved, the next most efficient means, that of giving the boy an opportunity for acquiring a knowledge of that trade for which he is best adapted, should be extended beyond the present limit.

The various problems connected with the question of the reformation of youthful criminals are ably and fully discussed in the report of Superintendent Gower.

State Public School for Dependent Children.

The main idea in establishing this institution, that it should be a temporary home for poor children until permanent homes are secured, has been very effectually carried out by Superintendent Foster, and as a result there were fewer inmates during the past year than in the preceding year. The average length of time that children have remained in the school since its establishment, has been but little more than twenty months and since 1880 the average has been less than twelve months. During the past year 216 children have been indentured, an increase of 109 over the year previous. Since the school was founded in 1872, over 1,300 children have been placed in homes, a very large percentage of whom have either become self-supporting or are still surrounded by the influences of home life.

The task of looking after the interest of this army of children after they have left the school, to see that the conditions of indenture and adoption are complied with, is a very onerous one. Of course this must be done chiefly by the several county agents whose duty it is to keep themselves informed as to the condition of the children placed in their respective counties. The law also provides for a more direct supervision of the wards of the school by designating some employé connected with the school, whose duty it shall be to visit the children who have been indentured and report their condition to the Board of Control. This duty has been delegated to Superintendent Foster, and the faithful manner in which this additional duty has been performed can be partially appreciated from the facts presented in his report as Agent. The best possible commentary upon the grand work that this institution is accomplishing, is embodied in the facts presented in this report. During the spring and summer the agent personally visited 500 children in their homes. He visited every child in the two southern tiers of counties, and the county agents, judges of probate and superintendents of the poor in 55 counties. During the year reports were received from all the children who have been placed in homes excepting eighteen, ten of whom are out of the State and when last heard from were well located. All of the 1,300 who have been indentured are doing well, and are, or promise to become, good citizens, with the following exceptions: 34 are now in the reform schools or prisons of this State, 51 are in poorhouses, and 9 are at large and leading bad lives. It will be seen that 93 per cent. are well cared for, are leading useful lives, or are self-supporting.

School session is held each day excepting during the summer. The classes are graded, though all instruction is necessarily of a primary character, as the children average less than nine years of age and have, as a rule, received no previous instruction. Provision is made for educating each child, by mak-

ing it a condition of indenturing, that he shall be sent to the public schools at least four months in each year. As showing the educational advantages furnished these children I quote from the Superintendent's report: "I find our children in the high schools of the State, pursuing classical studies, preparing for the University, graduating from other high schools, and at once engaging in active work. In one public school, lately, I found ten boys and girls, once inmates of the State Public School, all happy and mingling with other boys and girls, seemingly as full of life and glee as any there, and occupying honorable places in their classes."

The Michigan State Public School is the pioneer institution of its kind, and its plan of organization is more thorough and complete than any school of like character. The care exercised in securing homes, the personal supervision of the ward by the county agent and the representative of the school, and the reports from both guardian and agent, combine to make a most efficient system for reclaiming dependent children.

Institution for the Education of the Deaf and Dumb.

Many important improvements and changes have been made during the past year. A large addition to the main building has been completed, furnishing accommodations for 100 additional pupils. The sewerage has been thoroughly overhauled, and the hidden cause of many serious epidemics which have occured in previous years, removed. The number of pupils enrolled was 302, a considerable increase over the previous year. No especial changes are noted in the character of the work done in the school. The educational features of the school are divided into three departments: the primary, embracing the first five years; the grammar, covering the succeeding three years, and the academic included in the last two years of the course. The course of study pursued covers about the same ground as the primary and secondary grades of the public schools. Of course, object teaching enters largely into the system of instruction from the peculiar character of the pupils. The variety of occupations for which deaf mutes are adapted is necessarily limited, although the number of industries in which the pupils are instructed might be extended beyond what is at present provided for. The Superintendent suggests that special instruction be given in drawing, as many of the children develop a natural aptitude in this direction, which, if cultivated and developed by proper training, might be made of great practical benefit in after life. Mechanical drawing, drafting, modeling, painting, and many other sources of earning a living would be opened up to the pupils.

The industrial departments of the institution are in good condition and doing excellent work. The boys are given the choice of cabinet-making, shoemaking, or printing, while the girls are limited to instruction in sewing. If painting and drawing were added as suggested above, many of the girls might acquire sufficient skill to turn their knowledge to practical benefit to themselves.

The report of Superintendent Gass furnishes full information concerning the present condition of the school.

State Industrial Home for Girls.

No one can visit this institution without conceding the wisdom of its establishment. Most of the inmates are young girls who have been forced into evil ways by circumstances of birth or by poverty, who have never known the

restraint of personal care and loving interest which constitute the chief safeguards against evil doing. It is the aim and purpose of the Home to supply this restraining influence; to surround the girls with all the healthful influence of a pure home life; to *reform* rather than to *punish*. The school is established on the cottage plan, the inmates being classified on a basis of character and their relative capacities for improvement. The educational feature of the school consists of seven grades corresponding to the first two grades of the public schools. There is also an unclassified department for such inmates as it is desirable to keep separate from the others in school work. Until last year there was no attempt at scholastic grading, and the change in this respect seems to have aroused a more lively interest among the pupils and a corresponding increase of zeal on the part of the teachers. No especial trades are taught, but the girls are trained in household duties, and the constant aim is to implant in the mind of each an appreciation of the benign influences of an industrious home life.

The total number of girls enrolled in the school last year was 196, the average number being 147. The total enrollment was 57 in excess of the previous year.

Incorporated Institutions.

The reports from the several denominational and other incorporated educational institutions of the State indicate, generally, a fair degree of prosperity during the past year. Tabulated summaries of the reports from these institutions appear in the statistical portion of this report, and a study of the items incorporated in these tables will furnish a comparatively intelligent idea of their present condition.

The value of the real estate, buildings, apparatus, etc., is reported to be $921,536, while the productive funds amount to only $671,978.34. A large proportion of the first item represents the amount invested in buildings which, in many cases, is largely out of proportion to the needs of the institution. The incubus of a heavy debt incurred in erecting showy, costly structures has proved a serious embarrassment to the progress of a number of these institutions. A comparison of their financial reports for the past year with the reports for 1883, shows a slight improvement. There has been a gain of 34 per cent. in the total receipts, while the indebtedness has increased but 29 per cent.

Most of these schools report a larger attendance of students during 1884 than in the previous year, and improved facilities for instruction, and, as a rule, the year has been one of growth and prosperity. The total attendance at the institutions reporting aggregated 2,829 during 1884, or 152 in excess of 1883.

A brief sketch of such of these schools as have reported to this Department or have been personally visited, is appended.

Adrian College.

From the report of the trustees it appears that the assets of this college, including real estate, buildings, apparatus, endowment fund, etc., amount to over $300,000. Of this amount, only $80,000 is reported as productive. The institution has commodious and substantial buildings; an excellent museum of natural history, valued at over $20,000 and especially rich in zoölogical specimens; a well selected library of more than 4,000 volumes, and well equipped physical and chemical laboratories. The facilities for instruction are

good, but the authorities are in need of more funds. The invested funds do not yield a sufficient income to admit of as rapid advancement as would otherwise be possible. The academic department includes four courses. In addition to the regular collegiate course, the college includes a Preparatory department, a department of Theology, a department of Music, a Commercial department, and a Normal department. The elective system is followed in the academic department, degrees being conferred upon the completion of a certain amount of work, the choice of studies, with a very few exceptions, being left with the student. During the last year 174 students were enrolled. The graduating class numbered 16.

Albion College.

The number of students attending last year was 340, an increase of 78 over 1883. This large increase in the enrollment is attributed principally to the new method of study which was adopted two years ago, and which was first inaugurated by this school. It reverses the old system of linguistic study by placing the modern languages first in the curriculum and following this with the classics. So in history, contemporary history is studied first, medieval and ancient history being taken up later in the course. The change was a very radical one, and while the new movement is, as yet, an experiment, the results have proved very satisfactory to President Fiske. Its success here has induced a number of other institutions in different parts of the country to adopt it.

The productive funds of the college at present amount to $170,000. The year 1884 being the centennial of the Methodist Episcopal church, a movement was made to raise a fund to increase the endowment, which it is expected will ultimately largely increase the revenues of the institution. The requirements for admission have been modified so that applicants holding certificates from such public schools as have been approved by the faculty of the University, are admitted to the college without examination, provided such certificates have been granted within one year from the date of application for admission. Many valuable additions have been made to the museum and library during the year, both by purchase and by donation. The library at present contains between 4,000 and 5,000 volumes.

Battle Creek College.

The course of study in this institution covers the branches usually taught in the several grades of city public schools. Attention is chiefly given to instruction in the common branches. Special instruction is given in the modern languages, including the Swedish and Danish languages. Instrumental and vocal music is included in the curriculum. A manual training department has been established the past year, affording practical instruction in various trades and industries. The number of students in attendance during the past year was 284.

Detroit College.

This institution is one of a system of colleges under the control of the Society of Jesus. Though the professors and a majority of the students are Catholics, pupils of other denominations are admitted. The course of study embraces seven years, including a preparatory course. The instruction is very thorough, especially in the classics and modern languages. The instructors receive no salary and are liable to be transferred at any time to any other of the system

of colleges or to the ministry. No changes of importance have been made in the course of study during the past year. The number of students enrolled was 175.

Detroit Home and Day School.

This institution was opened in January, 1884. It is conveniently located in a new building erected especially for the purpose, well lighted and ventilated. The faculty numbers 13 members. The courses of study embrace twelve years, and include a primary, preparatory and collegiate course of four years each. The curriculum of the latter course includes higher mathematics, natural science, the higher English branches, ancient and modern languages, and history. A thoroughly organized school of music is connected with the school with a corps of instructors numbering twelve. The institution is under the management of a board of trustees composed of prominent business men of Detroit. Rev. J. D. Leggett, who formerly conducted a very successful private school in Detroit, is principal, and the institution gives every promise of future growth and success.

Hillsdale College.

The present year is the thirtieth anniversary of this institution and an effort is being made to commemorate the event in a substantial way by adding one hundred thousand dollars to the endowment fund. The stringency of the times will undoubtedly delay the accomplishment of this undertaking, but the friends of the College hope to succeed ultimately in their efforts. Early in the year Dr. Durgin resigned the presidency of the College and the position is temporarily filled by Professor Ransom Dunn, pending the choice of a permanent president.

With this exception but few changes have taken place in the faculty. The attendance during the year was 670 and, though somewhat less than during the preceding year, still exceeds that of any other denominational school in the State.

The courses of study in the collegiate department are practically the same as previously reported, and with the exception of an increase in the requirements for admission to the scientific course, the standard of admission remains unchanged. The work in the normal department has been materially enlarged and the course extended to embrace four years' study. The library of the College contains about eight thousand volumes. The biological laboratory is well equipped for original investigation and the museum of natural history has outgrown its accommodations rendering a separate building a necessity.

A fund amounting to two thousand dollars has been subscribed for the erection of a gymnasium, and the building is already in process of completion.

Hope College.

The nucleus of this institution was a grammar school founded in 1855. The College was incorporated in 1866. Its present endowment fund amounts to $75,000, the income of which is increased by an annual contribution of $3,000 from the Dutch Reformed Church organization. The property of the College is valued at $25,000, and includes several buildings none of which are very commodious or expensive, it being the policy of the trustees to expend only as much for buildings as necessity requires, a wise plan which is unfortunately not generally followed by denominational Colleges. Both boys and girls are

admitted and about nine-tenths of the students are Hollanders. The theological department, which was discontinued several years since, has been restored the past year. While a majority of the students belong to the Reformed Church, pupils from other denominations are in attendance, the instruction being entirely unsectarian. The library contains 6,000 bound volumes and 7,000 pamphlets, a portion of which is Dutch. A printing establishment is connected with the College in which is printed "De Hope," a Dutch weekly paper. The total enrollment reached 135, which is considerably in excess of previous years. There is no distinct scientific course, but the studies usually included in this course in other colleges are embraced in the regular College course. Latin is commenced the second year after entering and is pursued by nearly every pupil.

Dr. Phelps, who has been with the school since its organization, resigned the past year. Dr. Scott also tendered his resignation as acting president, but it was not accepted and he continues to fill the positions of president and professor. Many of the obstacles that have impeded the progress of the school in the past have been removed, and its prospects for the future are more encouraging.

Olivet College.

President Butterfield reports the past year as "One of few changes and steady advancement." Mather Hall has been completed at a cost of $25,000, affording ample accommodations in the upper story for the museum, while the lower floor is divided into two commodious lecture rooms. An annex is devoted to the chemical laboratory and two lecture rooms. The College possesses an unusually fine library numbering 11,000 bound volumes and 14,000 pamphlets.

Besides the additions that are constantly being made to the library by donation, the interest of a permanent fund which now amounts to $15,000, is annually expended in the purchase of new books. The library is conveniently classified and arranged so that the student can readily refer to all the authorities upon any subject that may be under consideration, which the library contains. A reading room is connected with the library, which is supplied with all the leading current periodicals. The museum is quite complete, being especially rich in specimens of geology, paleontology, and mineralogy. The apartments in the new building devoted to the museum have been arranged with special reference to the purpose, and make the collections much more available for study.

No material alterations have been made in the course of study. Three hundred and twenty-four students were enrolled during the year.

Michigan Military Academy.

During the past year a new building has been completed at a cost of $12,000, which is used for additional barracks. The class-room work is thorough, and the additional feature of military drill affords excellent facilities for physical training. Almost without exception the students of this institution are physically stronger when they leave the school than they were at entering, which is due largely to the regularity of exercise incident to the military requirements. The number of pupils enrolled last year was 90, a slight decrease from the attendance the previous year. Industrial education has been introduced to a limited extent. The school continues to be included in the list of preparatory schools whose graduates are admitted to the University without examination.

Somerville School.

Lack of harmony in the management of this school reduced the attendance very materially over that of 1883, and proved a very serious check to its progress. At present the school is under the control of Rev. C. C. Wetzell, formerly principal of the Monroe Young Ladies' Seminary.

The building is excellently arranged, well supplied with library and apparatus, the rooms commodious and well furnished, and under the new management it is hoped that the school may regain the place it formerly occupied when under the control of its founder, Mrs. C. F. Ballentine. The attendance last year was 38.

Kalamazoo College.

Rev. Kendall Brooks has resumed his duties as president of the college after a year's absence. The enrollment of students shows an increase of 45 over the preceding year, reaching a total of 204. No changes of importance have been made in the courses of study or the corps of instructors.

One of the college buildings is used as a dormitory for young men, where a limited number of students are accommodated. A third building is soon to be erected as a home for young women. An efficient organization has been formed by ladies of Michigan for this work, and the work is now under way. With this building there will be provided boarding arrangements. The library contains about four thousand volumes.

CONCLUSION.

It affords me pleasure, in concluding this report, to acknowledge again the cheerful support that has been accorded me by the school men and school officers from all parts of the State.

Though called upon, in my official duties, to criticize occasionally the work of these persons, it has been done, and invariably accepted, with courtesy and kindness.

It has been my purpose and endeavor to perform the duties of the office fully, faithfully, and honestly; but, whatever success may have been realized in my official labors, much credit is due to those who have so cordially assisted me in my work. How acceptable it may have been, I leave for others to decide, and I submit the contents of this report to the intelligent perusal and wise consideration of those in whose hands it may chance to come.

Very respectfully,

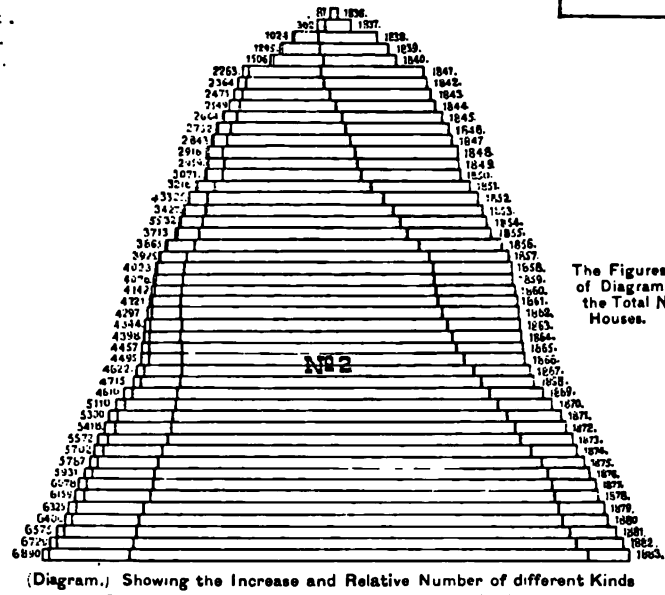
HERSCHEL R. GASS,

Superintendent of Public Instruction.

DIA
Comparing the Several Educational Fu
also the Annual In

EXPLANATION OF COLORS IN DIAGRAM No. 2.

- FRAME.
- BRICK.
- STONE.
- LOG.



The Figures on the Left Side of Diagram No. 2, represent the Total Number of School Houses.

(Diagram.) Showing the Increase and Relative Number of different Kinds of School Houses in Michigan from 1836 to 1883 inclusive.

EXPLANATION OF COLORS IN DIAGRAM No. 1.

- EXPENDED FOR ALL OTHER PURPOSES, INCLUDING AMOUNT ON HAND.
- PAID ON BONDED INDEBTEDNESS.
- PAID FOR BUILDING AND REPAIRS.
- PAID FEMALE TEACHERS.
- PAID MALE TEACHERS.
- EXPENDITURES NOT ITEMIZED.

23.
59
70.
78.
65.
74.
65.
86.
87.
154.
158.2
185.2
213.7
217.0
260.3
287.6
297.5
386.5
500.0
448.0
536.1
551.0
599.9
660.0
754.7
745.3
827.6
955.0
1 237.5
1 573.3
1 085.4
2 478.5
2 759.1
3 271.3
3 331.0
3 650.1
3 729.6
4 094.8
4 177.0
3 877.1
3 753.7
3 859.8
3 843.8
3 789.2
4 302.5
4 735.0
5 383.4

(DIAGRAM.) SHOWING THE TOTAL AND RELATIV OF THE PUBLIC SCHOOLS OF MICHI

ERRATA. IN NO. 2, OPPOSITE YEAR 1854, FOR 5532 I
IN EXPLANATION OF COLORS IN DIAGRAM I

Trust by the State of Michigan, from each.

PRIMARY SCHOOL INTEREST FUND.
INCOME.
UNIVERSITY FUND.
INCOME.
AGRICULTURAL COLLEGE FUND.
INCOME.
NORMAL SCHOOL FUND.
INCOME.

EXPLANATION OF COLORS IN DIAGRAM No. 3.

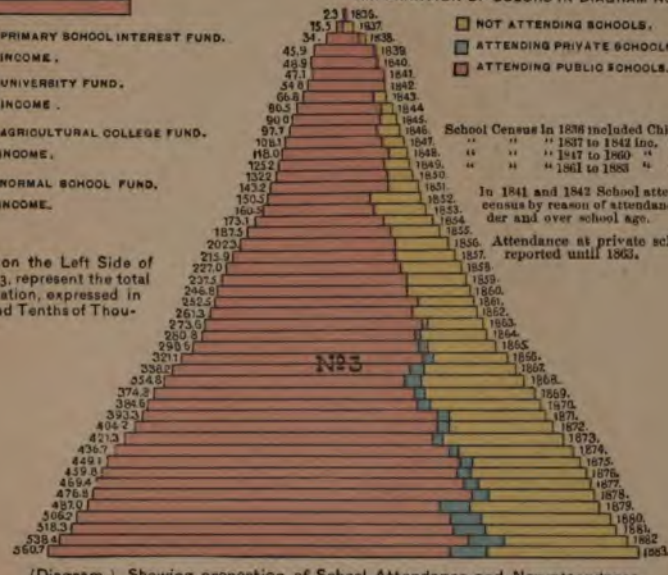
NOT ATTENDING SCHOOLS.
ATTENDING PRIVATE SCHOOLS.
ATTENDING PUBLIC SCHOOLS.

School Census in 1836 included Children from 5 to 18.
" " " 1837 to 1842 inc. " " 5 to 17.
" " " 1847 to 1860 " " " 4 to 18.
" " " 1861 to 1883 " " " 5 to 20.

In 1841 and 1842 School attendance exceeded census by reason of attendance of children under and over school age.

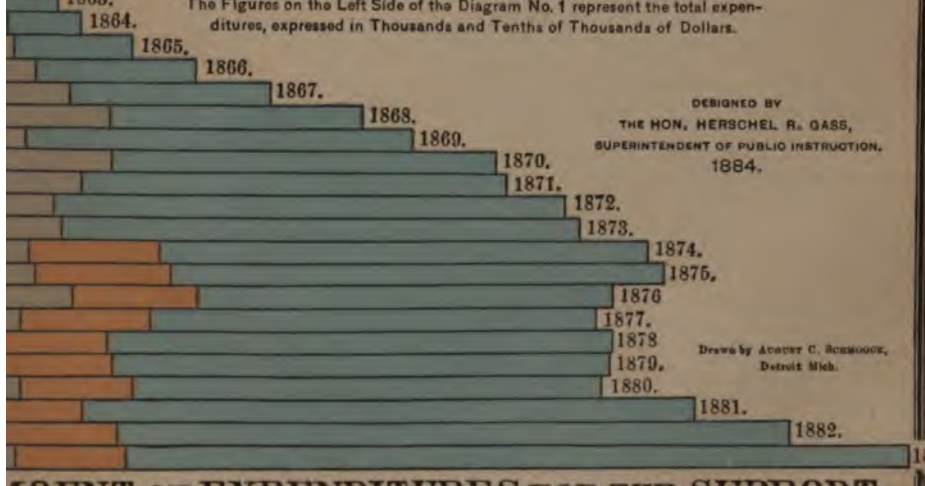
Attendance at private schools was not reported until 1863.

The Figures on the Left Side of Diagram No. 3, represent the total School Population, expressed in Thousands and Tenths of Thousands.



(Diagram.) Showing proportion of School Attendance and Non-attendance to School Population in Michigan, from **1836** to **1883** inclusive.

The Figures on the Left Side of the Diagram No. 1 represent the total expenditures, expressed in Thousands and Tenths of Thousands of Dollars.



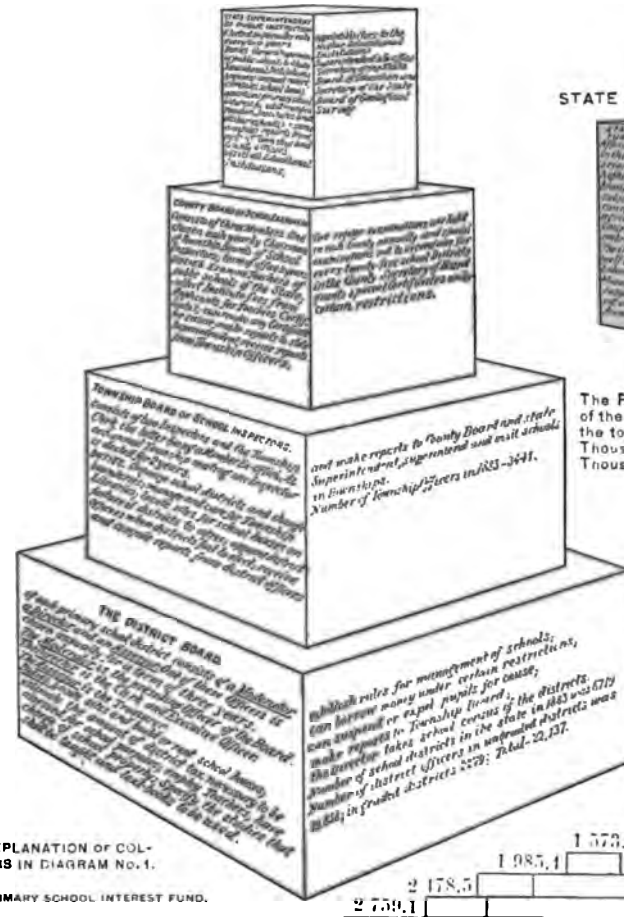
DESIGNED BY
THE HON. HERSCHEL R. GASS,
SUPERINTENDENT OF PUBLIC INSTRUCTION.
1884.

Drawn by Agnes C. Schmoock, Detroit Mich.

MOUNT OF EXPENDITURES FOR THE SUPPORT FROM 1837 TO 1883 INCLUSIVE.

OPPOSITE YEAR 1869 FOR 4810 READ 4910.
RST COLOR SHOULD BE ORANGE FOR "FRAME."

DIAGRAM.
ILLUSTRATING THE OFFICIAL MANAGEMENT OF
THE PUBLIC SCHOOLS OF MICHIGAN.

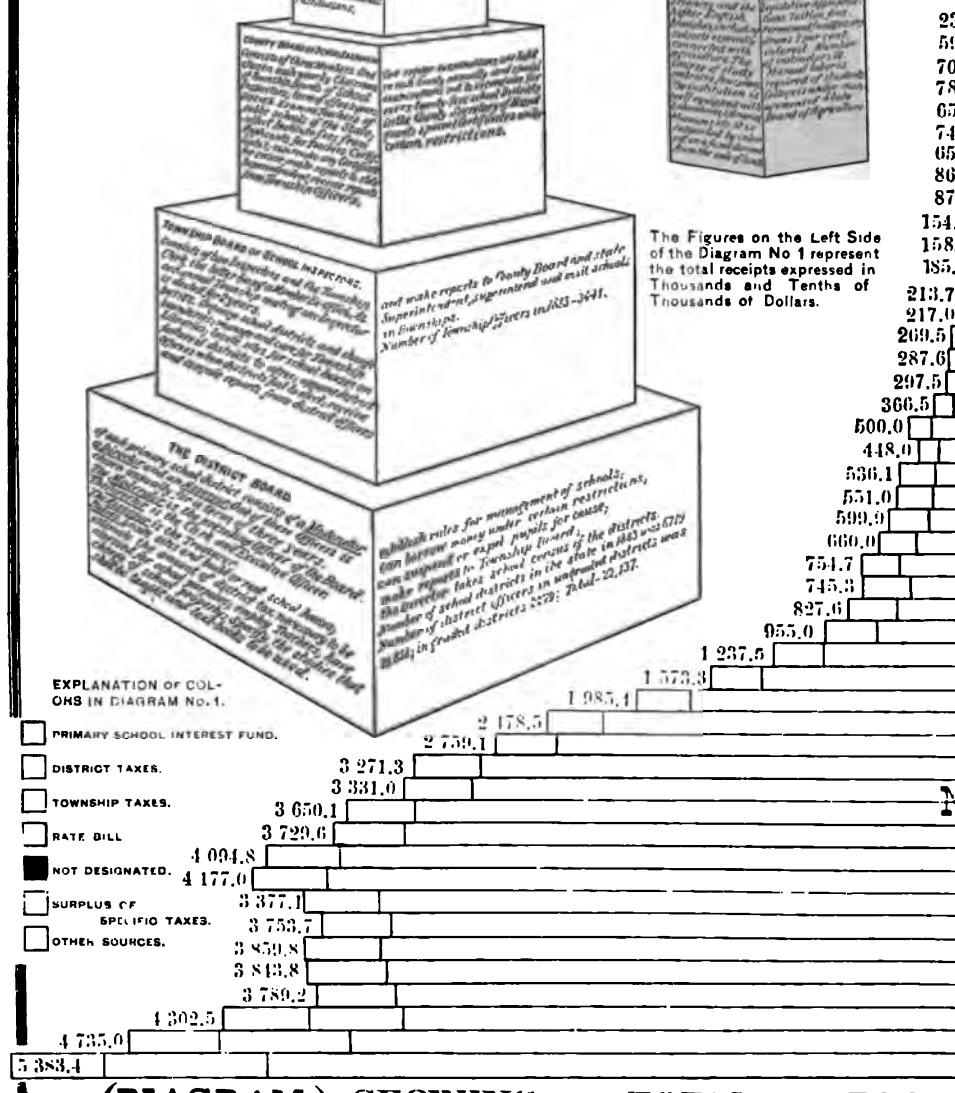

THE DISTRICT BOARD.
and make reports to County Board and state Superintendent of Instruction and visit schools in townships.
Number of Township Officers in 1883-3441.
which rules for management of schools; can borrow money under certain restrictions; can suspend or expel pupils for cause; make reports to Township Board; the Director takes school census of the districts. Number of school districts in the state in 1883 was 5719 Number of district officers in organized districts was 16,881; in graded districts 5579; Total-22,237.

STATE AGRICULTURAL COLLEGE.

The Figures on the Left Side of the Diagram No 1 represent the total receipts expressed in Thousands and Tenths of Thousands of Dollars.

EXPLANATION OF COLORS IN DIAGRAM No. 1.

- PRIMARY SCHOOL INTEREST FUND.
- DISTRICT TAXES.
- TOWNSHIP TAXES.
- RATE BILL
- NOT DESIGNATED.
- SURPLUS OF SPECIFIC TAXES.
- OTHER SOURCES.

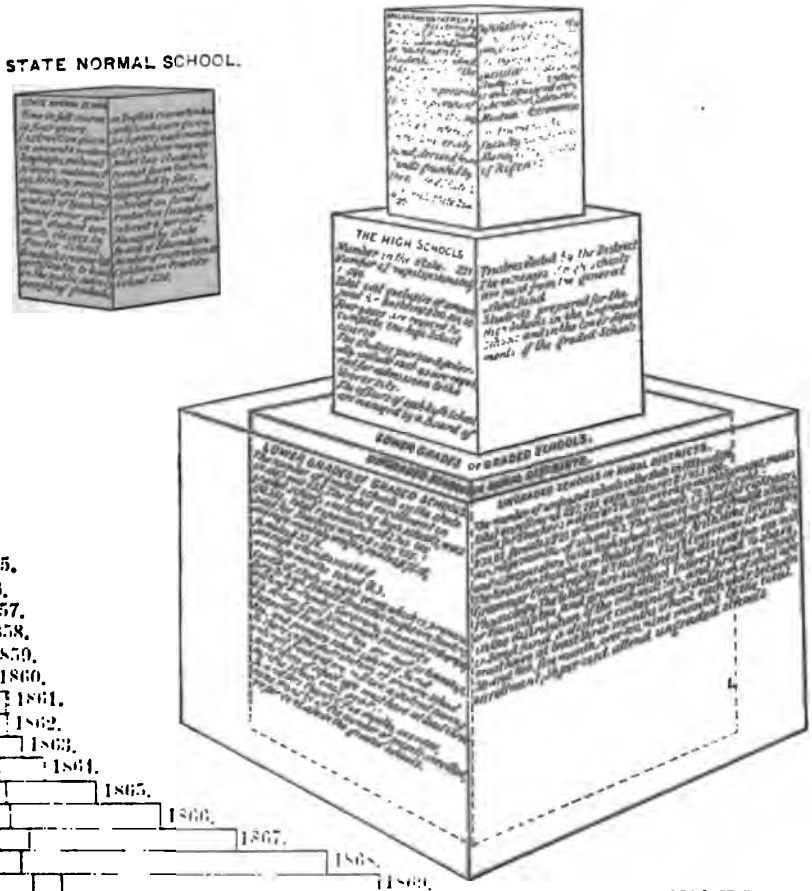


(DIAGRAM.) SHOWING THE TOTAL AND RELA
OF THE PUBLIC SCHOOLS OF MIC

Moss Eng. Co. N.Y.

ERRATA. (ON UNIVERSITY SECTION, IN DIAGRAM A
/ IN NO. 1, FOR 3,377.1 READ 3,877.1, OPPC

DIAGRAM
ILLUSTRATING THE EDUCATIONAL FEATURES OF
THE PUBLIC SCHOOLS OF MICHIGAN.



DESIGNED BY
THE HON. HERSCHEL R. GATES,
SUPERINTENDENT OF PUBLIC INSTRUCTION.
1884.

1854.
1855.
1856.
1857.
1858.
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AMOUNT OF RECEIPTS FOR THE SUPPORT
IN FROM 1837 TO 1883 INCLUSIVE.

HT, FOR 4 1-20 MILL AND 1-20 MILL STATE TAX.
1876.

STATISTICAL TABLES.

TABLE I.

Comparative Summary of Statistics for the Years 1883 and 1884.

	1883.	1884.	Increase or Decrease.
DISTRICTS AND SCHOOLS.			
Number of townships and independent districts reporting	1,147	1,176	29
Number of graded school districts	433	437	4
Number of ungraded school districts	6,286	6,378	92
Total	6,719	6,815	96
School census of graded schools	254,712	266,459	11,747
School census of ungraded schools	306,018	310,604	4,586
Total	560,730	577,063	16,333
Enrollment in graded schools	170,382	174,275	3,893
Enrollment in ungraded schools	221,228	230,691	9,463
Total	391,610	404,966	13,356
Percentage of attendance in graded schools	66.8	65.4	*dec.* 1.4
Percentage of attendance in ungraded schools	72.3	74.2	1.9
Percentage for the State	69.8	70.1	.3
Number of districts reporting having maintained school	6,617	6,728	111
Average duration of schools in months in graded schools	9.3	9.4	.1
Average duration of schools in months in ungraded schools	7.3	7.4	.1
Average for the State	7.4	7.6	.2
Number of private and select schools reported	295	296	1
Number of men teachers in such schools	137	253	116
Number of women teachers in such schools	282	383	101
Estimated number of pupils attending such schools	22,581	27,130	4,559

TABLE I.—*Continued.*

	1883.	1884.	Increase or Decrease.
TEACHERS AND THEIR EMPLOYMENT.			
Exact number of teachers necessary to supply graded schools	2,797	3,022	225
Exact number of teachers necessary to supply ungraded schools	6,360	6,458	98
Total	9,157	9,480	323
Number of men teachers employed in graded schools	574	589	15
Number of men teachers employed in ungraded schools	3,152	3,168	16
Total	3,726	3,757	31
Number of women teachers employed in graded schools	2,540	2,669	129
Number of women teachers employed in ungraded schools	8,571	8,834	263
Total	11,111	11,503	392
Whole number of teachers employed in graded schools	3,114	3,258	144
Whole number of teachers employed in ungraded schools	11,723	12,002	279
Total	14,837	15,260	423
Average number of months taught by men in graded schools	8.3	8.5	.2
Average number of months taught by men in ungraded schools	4.2	4.3	.1
General average	4.9	5.	.1
Average number of months taught by women in graded schools	8.9	9.	.1
Average number of months taught by women in ungraded schools	3.8	3.9	.1
General average	4.9	5.1	.2
Total wages of male teachers in graded schools	$366,969 91	$389,606 22	$22,636 31
Total wages of male teachers in ungraded schools	458,386 52	498,446 85	40,060 33
Total	$825,356 43	$888,053 07	$62,696 64

TABLE I.—*Continued.*

	1883.	1884.	Increase or Decrease.
Total wages of female teachers in graded schools	$857,986 08	$923,627 66	$65,641 58
Total wages of female teachers in ungraded schools	778,144 15	870,886 03	92,741 88
Total	$1,636,130 23	$1,794,513 69	$158,383 46
Aggregate wages of all teachers in graded schools	$1,224,955 99	$1,313,233 88	$88,277 89
Aggregate wages of all teachers in ungraded schools	1,236,530 67	1,369,332 88	132,802 21
Total	$2,461,486 66	$2,682,566 76	$221,080 10
Average wages of male teachers in graded schools	$75 19	$77 78	$2 59
Average wages of male teachers in ungraded schools	34 05	36 59	2 54
Average wages of male teachers in all schools	$44 09	$46 92	$1 93
Average wages of female teachers in graded schools	$37 56	$38 11	$0 55
Average wages of female teachers in ungraded schools	23 96	25 25	1 29
Average wages of female teachers in all schools	$29 58	$30 68	$1 10
* EXAMINATION AND CERTIFICATION OF TEACHERS.			
Number of public examinations held	455	446	*dec.* 9
Number of applicants for regular certificates	13,172	12,589	*dec.* 583
Number of first grade certificates granted	135	155	20
Number of second grade certificates granted	564	540	*dec.* 24
Number of third grade certificates granted	8,020	8,282	262
Whole number of regular certificates granted	8,719	8,977	258
Number of applicants for special certificates	3,110	2,500	*dec.* 610
Number of special certificates granted	2,601	2,302	*dec.* 99
Number teaching who held State or Normal certificates	292	297	5
Whole number of legally qualified teachers	10,027	10,026	*dec.* 1
Number licensed without previous experience in teaching	1,882	2,342	460
Number of applicants who had attended the Normal school	2,244	2,704	460
Number of applicants who had attended institutes during the year	4,152	4,399	247

* No reports for 1884 have been received from the Secretaries of the County Boards of Osceola, Otsego, Schoolcraft, and Van Buren counties.

TABLE I.—*Continued.*

	1883.	1884.	Increase or Decrease.
SCHOOL PROPERTY.			
Number of frame school-houses	5,357	5,478	121
Number of brick school-houses	962	1,000	38
Number of stone school-houses	75	76	1
Number of log school-houses	496	499	3
Total	6,890	7,053	163
Whole number of sittings in school-houses	485,386	498,859	13,473
Estimated value of property in graded school districts	$6,758,662 00	$6,972,168 00	$213,506 00
Estimated value of property in ungraded school districts	3,677,198 00	3,973,010 00	295,812 00
Total	$10,435,860 00	$10,945,178 00	$509,318 00
Number of districts reporting dictionaries in school	2,539	2,939	400
Number of districts reporting globes in school	1,179	1,404	225
Number of districts reporting maps in school	1,511	1,811	300
FINANCIAL.			
Amount of moneys from preceding year	$933,688 22	$1,098,974 09	$165,285 87
Amount of one-mill tax received	640,141 50	687,608 04	47,466 54
Amount of primary school interest fund received	724,864 21	725,169 57	305 36
Amount received for tuition from non-residents	46,196 17	51,652 31	5,456 14
Amount received from district taxes	2,538,997 07	2,601,620 33	62,623 26
Amount received from all other sources	499,539 03	479,436 70	*dec.* 20,102 33
Total resources	$5,383,426 20	$5,644,461 04	$261,034 84
Amount paid male teachers	$822,694 27	$885,361 88	$62,667 61
Amount paid female teachers	1,636,389 34	1,789,123 29	152,733 95
Amount paid for building and repairs	707,408 20	729,282 44	21,874 24
Amount paid on bonded indebtedness	326,892 48	348,502 46	21,609 98
Amount paid for all other purposes	766,488 47	884,064 93	117,576 46
Amount carried to next year	1,123,553 44	1,008,126 04	*dec.* 115,427 40
Total expenditures, including balance on hand	$5,383,426 20	$5,644,461 04	$261,034 84
Total expenditures in graded school districts	$2,305,906 36	$2,587,571 64	$281,665 28
Total expenditures in ungraded school districts	1,953,966 40	2,048,763 36	94,796 96
Total net expenditures	$4,259,872 76	$4,636,335 00	$376,462 24
Total bonded indebtedness of districts	$1,371,404 08	$1,396,083 43	$24,679 35
Total floating indebtedness of districts	122,377 31	117,616 45	*dec.* 4,760 86
Total indebtedness	$1,493,781 39	$1,513,699 88	$19,918 49

TABLE I.—*Continued.*

	1883.	1884.	Increase or Decrease.
Total indebtedness of graded school districts	$1,115,218 74	$1,166,249 33	$51,030 59
Total indebtedness of ungraded school districts	378,562 65	347,450 55	*dec.* 31,112 10
Total indebtedness	$1,493,781 39	$1,513,699 88	$19,918 49
Total amount due the districts	$176,903 28	$159,758 46	$17,144 82
SCHOOL LIBRARIES.			
Number of townships maintaining libraries	426	460	34
Number of volumes in township libraries	97,639	102,658	5,019
Amount paid for support of township libraries	$12,881 01	$13,261 53	$380 52
Amount of taxes voted for township libraries	2,924 70	2,538 62	*dec.* 386 08
Amount received from county treasurers	8,080 55	14,560 25	5,679 91
Number of townships diverting moneys to general purposes	356	444	88
Number of townships forfeiting library moneys	311	277	*dec.* 34
Number of districts of 100 children or more maintaining libraries	272	276	4
Number of volumes in such libraries	180,744	193,581	12,837
Amount paid for support of such libraries	$34,547 88	$37,641 28	$7,093 40
Amount received from county treasurers	22,816 44	17,524 71	*dec.* 5,291 73
Number of districts of less than 100 children reporting libraries	921	944	23
Number of volumes in such libraries	49,270	51,318	2,048
Whole number of libraries of all kinds	1,619	1,680	61
Whole number of volumes in libraries	327,653	347,557	19,904
TEACHERS' INSTITUTES.			
Number of State institutes held	65	68	3
Number of men enrolled at such institutes	1,501	1,702	201
Number of women enrolled at such institutes	4,257	4,659	402
Total enrollment	5,758	6,361	603
Amount received from State treasurer for such institutes	$1,800 00	$1,800 00	
Amount received from county treasurers	6,345 15	8,000 35	$1,655 20
Total amount received and expended	$8,145 15	$9,800 35	$1,655 20
MISCELLANEOUS.			
Number of counties having County Teachers' Associations	36	38	2
Number of visits to schools by secretaries of county boards	546	520	*dec.* 26
Number of visits by other members of county boards	173	273	100
Total number of visits	719	793	74

TABLE I.—*Continued.*

	1883.	1884.	Increase or Decrease.
Amount *per diem* received by examiners	$11,538 04	$11,903 10	$365 06
Amount paid secretaries of county boards for services	13,160 00	13,169 50	9 50
Amount received by secretaries for special certificates	1,779 50	1,372 50	*dec.* 407 00
Total compensation	$26,477 54	$26,445 10	*dec.* $32 44
Amonnt allowed by supervisors for expenses of county boards	$1,309 34	$948 92	*dec.* $360 42
Amount paid and due township inspectors for services	24,857 06	17,813 85	*dec.* 7,043 21
Amount paid and due chairmen of boards of inspectors	14,370 81	24,907 12	10,536 31

TABLE II.

Apportionment of the Primary School Interest Fund for 1884, at $1.31 Per Capita, made May 7th, 1884.

Counties.	Whole Number of Children in School Census.	Number included in the Apportionment.	Amounts Apportioned.
Totals	560,730	557,379	$730,943 08
Alcona	1,091	1,091	$1,429 21
Allegan	12,625	12,452	16,312 12
Alpena	3,397	3,389	4,439 59
Antrim	2,570	2,440	3,196 40
Arenac	1,093	1,093	1,431 83
Baraga	795	727	952 37
Barry	8,043	8,013	10,497 03
Bay	13,126	13,074	17,126 94
Benzie	1,342	1,331	1,743 61
Berrien	11,875	11,806	15,465 86
Branch	7,972	7,972	10,443 32
Calhoun	11,420	11,406	14,941 86
Cass	6,351	6,313	8,270 03
Charlevoix	2,735	2,716	3,557 96
Cheboygan	2,979	2,926	3,833 06
Chippewa	2,053	1,979	2,592 49
Clare	1,342	1,334	1,747 54
Clinton	8,813	8,813	11,545 03
Crawford	556	549	719 19
Delta	1,882	1,882	2,465 42
Eaton	9,317	9,317	12,205 27
Emmet	2,508	2,448	3,206 88
Genesee	11,845	11,789	15,443 59
Gladwin	405	405	530 55
Grand Traverse	3,302	3,255	4,264 05
Gratiot	8,161	8,161	10,690 91
Hillsdale	9,396	9,396	12,308 76
Houghton	8,578	8,578	11,237 18
Huron	8,394	8,295	10,866 45
Ingham	10,349	10,257	13,436 67

TABLE II.—*Continued.*

Counties.	Whole Number of Children in School Census.	Number included in the Apportionment.	Amounts Apportioned.
Ionia	9,710	9,679	$12,679 49
Iosco	2,564	2,534	3,319 54
Isabella	4,842	4,744	*a* 6,351 09
Isle Royal			
Jackson	12,528	12,528	16,411 68
Kalamazoo	9,974	9,942	13,024 02
Kalkaska	1,384	1,373	1,798 63
Kent	25,077	25,077	32,850 87
Keweenaw	1,560	1,502	1,967 62
Lake	1,619	1,605	2,102 55
Lapeer	9,659	9,608	12,586 48
Leelanaw	2,348	2,348	3,075 88
Lenawee	14,267	14,267	18,689 77
Livingston	6,540	6,510	8,528 10
Mackinac	1,206	1,190	1,558 90
Macomb	10,933	10,826	14,182 06
Manistee	5,456	5,452	7,142 12
Manitou	425	425	556 75
Marquette	8,525	8,355	10,945 05
Mason	3,354	3,277	4,292 87
Mecosta	5,615	5,537	7,253 47
Menominee	3,960	3,850	5,043 50
Midland	2,653	2,559	3,352 29
Missaukee	679	577	755 87
Monroe	11,733	11,733	15,370 23
Montcalm	10,465	10,381	13,599 11
Montmorency	186	178	233 18
Muskegon	10,841	10,806	14,155 86
Newaygo	5,402	5,291	*b* 7,265 33
Oakland	11,702	11,702	15,329 62
Oceana	4,345	4,338	5,682 78
Ogemaw	882	827	1,083 37
Ontonagon	1,140	1,140	1,493 40
Osceola	4,201	4,027	*c* 5,499 88
Oscoda	256	230	301 30
Otsego	991	948	1,241 88
Ottawa	12,923	12,923	16,929 13
Presque Isle	1,147	1,050	1,375 50
Roscommon	370	357	467 67
Saginaw	22,125	22,015	28,839 65
St. Clair	16,409	16,424	21,515 44
St. Joseph	8,212	8,180	10,715 80
Sanilac	11,031	10,989	14,395 59
Schoolcraft	721	704	922 24
Shiawassee	8,711	8,644	11,323 64
Tuscola	9,003	9,870	12,929 70
Van Buren	9,392	9,392	*d* 12,385 03
Washtenaw	13,024	12,969	16,989 39
Wayne	62,744	62,712	82,152 72
Wexford	2,621	2,577	3,375 87

a Including $136.45; deficiency for 1883.
b Including $334.12; deficiency for 1883.
c Including $224.51; deficiency for 1883.
d Including $91.51; deficiency for 1883.

TABLE III.

General School Statistics, as reported by School Inspectors for the Year ending September 1, 1884.

Counties.	Number of townships and cities reporting.	Whole No. of School Districts.	Number of Districts that Maintained Schools.	Number of Graded School Districts.	Number of Children between five and twenty years of age.	Number of Children that attended Public Schools.	Average number of Months of School.	Number of School Houses and Material of Construction.				Whole number of Sittings Provided in School Houses.	Estimated Valuation of School Property.
								Frame.	Brick.	Stone.	Log.		
Totals.	1,176	6,815	6,728	437	577,063	404,966	7.6	5,478	1,000	76	499	498,859	$10,945,178 00
Alcona	4	18	18	1	1,179	794	8.8	12	.....	....	5	936	$14,160 00
Allegan	24	184	184	11	12,518	10,206	8.7	175	14	....	2	12,765	165,113 00
Alpena	7	24	23	1	3,724	2,379	6.0	30	1	....	13	2,392	53,900 00
Antrim	14	61	61	3	2,829	2.190	6.8	42	2	....	23	3,195	44,831 00
Arenac	9	22	22	....	1,230	952	8.0	19	.....	....	3	1,306	13,925 00
Baraga	4	10	9	1	776	553	7.5	7	.....	....	1	607	21,550 00
Barry	17	147	147	5	7,916	6,937	7.7	138	10	....	2	9,040	143,615 00
Bay	13	48	46	5	14,410	7,354	8.1	48	9	....	4	7,567	242,966 00
Benzie	11	37	37	1	1,461	1,186	6.3	31	.....	....	5	1,553	19,325 00
Berrien	21	149	149	14	12,167	9,485	7.6	121	36	....	....	12,671	298,165 00
Branch	17	129	129	6	7,995	6,717	8.0	84	36	12	....	9,123	181,450 00
Calhoun	22	166	166	8	11,954	9,153	8.6	136	36	6	....	11,781	462,763 00
Cass	16	116	115	6	6,379	5,163	8.0	87	30	....	....	7,331	143,925 00
Charlevoix	15	63	61	3	2,892	1,999	6 4	44	1	....	15	2,782	40,266 00
Cheboygan	14	47	44	2	3,178	1,928	6.6	26	1	....	19	2,268	29,724 00
Chippewa	8	30	26	1	2,363	1,590	7.1	11	1	....	13	1,661	28,759 00
Clare	8	31	28	3	1,398	1,148	7.0	23	.....	....	6	1,748	26,093 00
Clinton	16	130	130	8	8,673	6,799	7.8	112	17	....	1	8,698	122,981 00
Crawford	8	36	34	1	619	518	5.7	27	.....	....	7	1.324	18,877 00
Delta	12	23	22	1	2,341	1,492	7.5	14	1	....	5	1,650	43,930 00
Eaton	18	147	147	8	9,351	8,074	7.6	123	30	1	2	9,833	161,650 00
Emmet	12	56	56	2	2,525	1,834	5.3	34	.....	....	19	2,670	24,006 00
Genesee	19	159	159	11	11,820	9,967	7.4	153	14	....	2	11,903	282,935 00
Gladwin	8	19	18	....	480	367	6.7	7	.....	....	11	632	10,175 00
G'd Traverse	12	59	58	1	3,272	2,618	6.8	59	1	....	5	3,211	41,786 00
Gratiot	17	121	121	6	8,264	6,705	7.3	111	6	....	4	8,086	116,995 00
Hillsdale	19	169	169	11	9,491	7,782	7.8	113	48	10	1	11,415	233,750 00
Houghton	7	20	17	9	8,754	5,504	9.8	17	1	2	1	5,383	97,425 00
Huron	27	99	98	9	8,810	5.147	7.4	78	4	....	15	6,901	79,920 00
Ingham	17	135	135	9	10,619	8,296	8.1	112	29	....	2	9,712	233,520 00
Ionia	17	145	145	9	9,817	8,158	7.8	120	26	2	2	10,555	183.840 00
Iosco	10	25	22	4	2,857	1,870	7.3	21	.....	....	4	1,853	28,850 00
Isabella	16	92	92	2	5,131	3,677	7.4	69	3	....	17	5,050	67,607 00
Isle Royal	.....	.....	.....	....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	20	158	158	10	12,766	9,969	8.3	114	55	2	....	11,761	333,675 00
Kalamazoo	17	139	139	7	9,971	7,569	7.6	114	31	....	....	10,434	251,610 00
Kalkaska	12	51	48	1	1,458	1,151	5 9	40	1	....	8	2,167	29,881 00
Kent	25	212	209	16	25,615	18,171	7.9	187	39	....	4	20,132	772,600 00
Keweenaw	7	11	11	3	1,470	1,101	8.2	13	.....	....	1	1.654	19,990 00
Lake	13	48	47	3	1,856	1,539	6.8	37	1	....	9	2,355	38,015 00
Lapeer	19	136	135	11	9,916	7,953	8.1	133	4	1	1	9,952	145,816 00
Leelanaw	10	53	51	2	2,448	1,753	6.0	31	1	1	15	2,322	22,360 00
Lenawee	24	199	199	15	14,297	10,969	8.1	105	98	8	....	14,578	385,893 60
Livingston	16	134	134	5	6,487	5,512	8.0	120	11	3	1	7,364	117,967 00
Mackinac	9	24	20	2	1,479	958	5.1	12	.....	....	8	1,261	19,844 00
Macomb	14	113	113	9	10,892	6,500	8.1	101	16	....	....	8,725	160,615 00
Manistee	13	51	49	3	5,723	3,416	7.0	37	2	....	11	4,202	103,215 00
Manitou	3	4	4	1	408	258	8.5	2	.....	....	3	525	1,550 00
Marquette	18	39	38	10	9,425	6,476	8.3	35	2	2	10	5,826	168,417 00
Mason	14	51	50	1	3,925	2,944	7.1	42	1	....	11	3,195	51,625 00
Mecosta	17	89	88	3	6,046	4,549	7.3	77	2	....	14	5,723	103,485 00
Menominee	10	30	29	4	4,442	3,107	8.5	29	1	....	6	2,427	77,605 00
Midland	15	55	52	2	2,943	2,107	7.1	36	2	....	15	3,013	49,250 00
Missaukee	12	36	34	....	793	644	6.4	27	.....	....	6	1,245	17,760 00
Monroe	16	137	137	7	11,810	7,524	7.9	73	64	2	....	9,859	145,615 00

TABLE III.—*Continued.*

Counties.	Number of townships and cities reporting.	Whole No. of School Districts.	Number of Districts that Maintained Schools.	Number of Graded School Districts.	Number of Children between five and twenty years of age.	Number of Children that attended Public Schools.	Average number of Months of School.	Number of School Houses and Material of Construction. Frame.	Brick.	Stone.	Log.	Whole number of sittings Provided in School Houses.	Estimated Valuation of School Property.
Montcalm	22	130	130	10	10,783	8,482	9.0	118	3	....	7	10,317	$160,725 00
Montmorency	4	20	14	....	229	202	6.8	4	.....	....	9	372	4,300 00
Muskegon	18	87	86	7	11,438	7,902	7.1	80	9	....	8	7,759	225,366 00
Newaygo	22	97	96	4	5,625	4,287	7.2	82	3	....	14	5,585	77,970 00
Oakland	25	218	218	15	11,573	9,586	7.7	179	36	15	....	14,045	289,595 00
Oceana	16	85	84	4	4,607	3,640	7.0	76	.....	....	10	5,065	55,473 00
Ogemaw	14	35	31	1	932	818	7.1	25	.....	....	7	1,272	13,776 00
Ontonagon	5	10	9	5	1,128	804	8.7	7	.....	....	1	975	15,850 00
Osceola	16	82	78	3	4,540	3,209	7.1	60	.....	....	19	4,204	54,555 00
Oscoda	9	24	22	....	358	309	4.5	11	.....	....	8	435	4,467 00
Otsego	8	34	33	1	1,164	866	6.4	29	.....	....	3	1,518	18,357 00
Ottawa	17	119	119	17	13,044	9,444	7.9	106	16	....	2	11,053	183,845 00
Presque Isle	10	25	22	1	1,190	594	4.8	11	.....	....	14	1,430	15,650 00
Roscommon	5	13	10	....	432	294	6.4	5	.....	....	4	444	5,275 00
Saginaw	30	143	143	8	23,006	13,176	7.5	129	19	....	7	13,732	410,551 00
St. Clair	25	151	151	9	16,917	10,869	7.9	137	13	....	7	13,077	229,470 00
St. Joseph	16	124	124	9	7,885	6,536	8.1	91	33	2	....	9,311	245,395 00
Sanilac	26	129	129	11	11,228	7,855	8.0	113	4	....	14	9,139	87,767 00
Schoolcraft	8	14	13	1	727	474	5.9	7	1	....	6	907	17,568 00
Shiawassee	18	122	122	7	8,783	7,078	7.9	112	12	....	4	8,886	176,650 00
Tuscola	23	131	131	9	10,382	7,658	7.7	120	9	....	6	9,010	106,540 00
Van Buren	18	157	155	14	9,326	7,708	7.6	140	18	....	....	11,061	205,030 00
Washtenaw	22	165	165	7	12,924	9,555	7.6	107	61	7	1	11,719	391,485 00
Wayne	20	147	147	15	64,520	28,697	8.6	107	75	....	1	28,101	1,211,510 00
Wexford	17	66	63	2	2,959	2,211	6.6	53	.....	....	14	3,120	44,945 00

TABLE IV.

Employment of Teachers, as reported by School Inspectors, for the Year ending September 1, 1884.

Counties.	No. of Teachers required to supply the schools. Graded Schools.	Ungraded Schools.	Whole No. of Teachers employed. Men.	Women.	Aggregate No. of months taught by all Teachers. Men.	Women.	Total Wages of Teachers. Men.	Women.	Total.	Average Monthly Wages of Teachers. Men.	Women.
Totals	3,022	6,458	3,757	11,503	18,708	58,492	$883,053 07	$1,794,513 69	$2,682,566 76	$46 92	$30 68
Alcona	4	18	11	19	72	121	$4,180 50	$4,324 13	$8,504 63	$58 00	$33 61
Allegan	48	177	87	326	419	1,356	18,321 28	34,822 05	53,143 33	43 73	25 66
Alpena	19	37	10	57	52	373	3,376 10	13,540 00	16,916 10	56 48	36 30
Antrim	16	52	26	91	128	394	5,180 25	11,891 03	17,071 30	40 47	30 18
Arenac	.....	23	7	25	44	134	1,767 00	4,375 10	6,142 10	40 16	32 65
Baraga	5	8	5	9	37	69	2,446 75	2,935 00	5,381 75	66 13	42 54
Barry	27	144	89	253	347	987	12,991 13	23,604 95	36,596 08	37 44	23 92
Bay	83	42	24	124	146	1,042	9,247 83	37,991 00	47,238 83	63 34	36 38
Benzie	6	37	17	48	79	207	3,059 00	5,666 00	8,725 00	38 72	27 26
Berrien	78	135	74	268	398	1,327	20,253 74	38,672 82	58,926 56	50 89	29 14
Branch	46	123	96	246	419	1,006	18,304 61	24,857 02	43,161 63	43 69	24 71
Calhoun	82	159	87	345	393	1,667	19,659 08	46,007 78	65,666 86	50 02	27 59
Cass	29	111	76	195	360	780	14,947 32	22,904 24	37,851 56	41 52	29 36
Charlevoix	9	60	31	78	122	342	4,507 75	9,080 71	13,588 46	36 95	26 55
Cheboygan	8	46	18	49	117	243	6,214 75	7,106 83	13,321 58	53 12	29 16

TABLE IV.—*Continued.*

Counties.	No. of Teachers required to supply the schools.		Whole No. of Teachers employed.		Aggregate No. of Months taught by all Teachers.		Total Wages of Teachers.			Average Monthly Wages of Teachers.	
	Graded Schools.	Ungraded Schools.	Men.	Women.	Men.	Women.	Men.	Women.	Total	Men.	Women.
Chippewa	4	29	10	24	63	154	$2,847 50	$4,753 16	$7,600 66	$45 19	$30 86
Clare	9	28	9	47	59	194	2,717 50	5,544 10	8,261 60	46 08	28 06
Clinton	38	122	105	205	439	871	17,542 67	24,243 52	41,786 19	39 96	27 83
Crawford	3	35	18	35	74	140	2,645 05	3,945 50	6,590 55	35 74	28 17
Delta	13	22	6	36	42	243	2,575 55	9,212 00	11,787 55	61 32	37 93
Eaton	49	139	73	280	313	1,190	12,339 38	32,480 67	44,820 05	39 42	27 29
Emmet	14	54	22	78	94	320	3,946 00	8,333 20	12,279 20	41 98	25 42
Genesee	74	149	122	266	558	1,313	23,337 86	37,849 57	61,187 43	41 82	28 83
Gladwin	------	19	6	24	24	97	818 50	3,042 00	3,860 50	34 10	31 36
Gd. Traverse	13	58	32	68	159	344	7,219 75	12,273 23	19,492 98	45 41	35 68
Gratiot	25	115	85	188	363	720	14,068 14	20,556 50	34,624 64	38 76	28 27
Hillsdale	44	162	101	309	429	1,266	17,734 66	28,006 39	45,741 05	42 13	21 98
Houghton	73	13	18	73	167	688	16,260 00	32,907 72	49,167 72	97 37	47 84
Huron	23	90	48	109	271	586	11,190 99	16,474 68	27,665 67	41 33	28 11
Ingham	67	127	82	279	384	1,305	17,568 91	33,998 57	51,567 48	45 75	26 05
Ionia	48	138	96	253	430	1,099	19,740 27	31,588 18	51,328 45	46 05	28 74
Iosco	19	22	13	36	86	229	5,213 30	7,247 92	12,461 22	60 62	31 65
Isabella	8	91	53	106	261	459	9,744 00	13,709 52	23,453 52	33 13	29 87
Isle Royal	------	------	------	------	------	------	------	------	------	------	------
Jackson	90	148	92	338	425	1,663	23,175 61	47,809 20	70,984 81	54 53	28 73
Kalamazoo	75	134	81	274	353	1,387	17,113 71	41,141 35	58,255 06	48 48	29 66
Kalkaska	4	52	24	57	113	214	4,404 39	6,461 85	10,866 24	38 98	30 19
Kent	194	197	113	490	591	2,834	32,360 88	102,092 53	134,453 41	54 76	36 03
Keweenaw	8	11	12	7	90	64	6,753 38	2,976 00	9,729 38	75 04	46 50
Lake	10	45	15	81	72	315	3,115 80	8,791 28	11,907 08	43 28	27 91
Lapeer	44	125	79	193	444	962	18,641 83	27,213 90	45,855 73	41 99	28 08
Leelanaw	4	52	30	46	129	193	4,817 93	5,503 52	10,321 45	37 35	28 52
Lenawee	91	186	108	403	470	1,875	23,712 85	51,161 85	74,874 70	50 45	27 29
Livingston	28	128	89	216	389	893	15,176 28	17,925 25	33,101 53	39 01	20 07
Mackinac	11	22	9	20	67	110	3,435 00	4,111 00	7,546 00	51 18	37 37
Macomb	42	104	51	160	318	908	15,149 98	23,730 88	38,880 86	47 64	26 14
Manistee	34	49	20	83	120	537	6,111 94	21,997 37	28,109 31	50 93	40 96
Manitou	2	3	3	4	15	24	555 00	610 00	1,165 00	37 00	25 42
Marquette	72	32	23	82	188	761	15,702 25	33,405 50	49,107 75	83 52	43 89
Mason	19	52	31	72	156	387	6,518 00	14,187 64	20,705 64	41 40	36 66
Mecosta	24	88	40	138	198	676	8,763 00	21,802 61	30,565 61	44 26	32 25
Menominee	28	26	12	57	85	397	5,665 00	15,033 39	20,698 39	66 65	37 87
Midland	10	53	18	77	95	354	4,467 00	10,493 41	14,960 41	47 02	29 64
Missaukee	------	36	17	39	66	151	2,634 25	5,284 11	7,918 36	39 91	34 99
Monroe	26	131	72	227	309	942	13,175 52	24,078 27	37,253 79	45 88	25 56
Montcalm	51	123	72	245	296	1,279	18,653 00	33,020 47	51,673 47	63 02	25 82
Montmorency	------	20	3	19	17	78	510 00	2,283 86	2,793 86	30 00	29 15
Muskegon	82	82	40	184	230	1,141	14,545 12	40,902 59	55,447 71	63 24	35 85
Newaygo	15	93	40	152	184	607	7,497 25	18,232 83	25,730 08	40 75	30 04
Oakland	71	205	115	327	588	1,636	25,500 60	38,780 48	64,281 08	43 37	23 70
Oceana	15	81	54	128	217	474	8,826 50	13,401 35	22,227 85	40 68	28 27
Ogemaw	2	34	9	40	46	178	1,768 75	5,716 97	7,485 72	38 45	32 12
Ontonagon	16	5	8	12	76	113	5,603 75	4,354 00	9,957 75	73 60	38 53
Osceola	15	80	40	103	193	490	8,048 00	14,640 23	22,688 23	41 69	29 88
Oscoda	------	24	5	26	18	75	510 00	1,737 00	2,247 00	28 38	23 23
Otsego	3	34	19	41	71	167	2,528 08	5,048 50	7,576 58	35 61	30 23
Ottawa	77	103	71	194	420	1,096	19,115 65	32,522 85	51,638 50	45 51	29 67
Presque Isle	2	24	18	6	82	27	2,608 50	729 00	3,337 50	31 81	27 00
Roscommon	------	13	3	15	13	51	559 00	2,116 50	2,675 50	43 00	41 50
Saginaw	131	137	74	288	423	1,910	25,374 19	65,084 07	90,458 26	59 99	34 08
St. Clair	64	145	63	244	377	1,416	16,808 85	38,645 62	55,454 47	44 59	27 28
St. Joseph	58	115	70	237	361	1,096	17,578 05	30,108 90	47,686 95	48 69	27 47
Sanilac	27	120	78	115	499	678	19,368 55	17,467 86	36,836 41	38 81	25 95
Schoolcraft	3	14	4	15	22	81	1,270 00	3,331 00	4,601 00	57 73	41 12
Shiawassee	38	115	90	192	410	874	17,218 64	24,209 90	41,428 54	42 00	27 70
Tuscola	30	123	80	172	405	807	16,378 50	22,344 31	38,722 81	40 44	27 69
Van Buren	56	146	81	272	401	1,223	17,722 54	31,386 02	49,108 56	44 20	25 66
Washtenaw	91	158	93	310	480	1,686	29,643 25	48,081 80	77,725 05	62 67	28 54
Wayne	363	133	91	496	643	4,059	39,800 00	190,207 44	230,007 44	61 90	46 84
Wexford	12	66	42	72	188	337	7,199 58	10,404 12	17,603 70	38 27	30 87

TABLE V.

Resources of School Districts, as reported by School Inspectors for the Year ending September 1, 1884.

Counties.	Moneys on hand Sept. 3, 1883.	One-Mill Tax.	Primary School Interest Fund.	Library Moneys.	District Taxes for all Purposes.	Raised from all other Sources.	Total Resources for the Year.
Totals	$1,098,974 09	$687,608 04	$725,169 57	$32,724 80	$2,601,620 33	$498,364 21	$5,644,461 04
Alcona	$4,433 40	$2,656 85	$1,460 42	----------	$6,414 00	$457 47	$15,422 14
Allegan	22,005 45	12,641 29	15,932 60	$576 65	38,936 76	6,589 43	96,682 18
Alpena	2,947 84	409 67	3,785 06	63 57	23,237 11	1,702 78	32,146 03
Antrim	5,423 50	2,516 46	3,095 31	3 96	21,115 28	3,292 11	35,446 62
Arenac	2,574 68	853 11	1,432 68	64 39	6,937 09	338 34	12,250 29
Baraga	3,937 28	1,079 08	866 49	50 00	7,860 00	488 07	14,280 92
Barry	15,976 31	18,339 29	10,504 93	562 71	23,974 52	4,891 09	74,248 85
Bay	29,963 75	4,029 27	17,098 42	167 42	63,707 41	1,254 74	116,221 01
Benzie	3,658 62	1,299 32	1,566 72	81	9,419 38	628 70	16,573 55
Berrien	23,296 45	24,075 38	14,725 47	599 86	46,007 06	8,913 71	117,617 93
Branch	18,145 54	24,736 18	10,270 89	134 69	28,824 04	13,768 35	93,879 69
Calhoun	16,664 60	16,697 29	15,085 03	602 18	77,130 36	5,131 64	131,311 10
Cass	11,507 79	13,793 66	8,604 88	608 02	30,215 94	4,610 87	69,341 16
Charlevoix	4,729 45	1,786 19	3,481 61	16 44	15,500 43	4,607 25	30,121 37
Cheboygan	5,005 46	3,094 36	3,468 12	----------	14,960 39	3,655 20	30,183 23
Chippewa	1,211 10	1,585 61	2,616 18	64 50	5,031 61	6,839 21	17,348 21
Clare	5,577 50	3,117 32	1,623 31	14 85	9,633 79	540 27	20,507 04
Clinton	17,103 96	15,697 12	11,088 81	398 70	28,230 32	3,944 97	76,463 88
Crawford	3,659 63	1,422 18	727 32	22 09	12,705 63	3,035 57	21,572 42
Delta	2,426 65	2,317 29	2,678 69	500 00	15,636 92	459 53	24,019 08
Eaton	14,691 23	14,346 83	12,010 23	201 36	38,933 68	5,447 23	85,630 56
Emmet	3,334 16	1,203 06	2,970 39	17 37	16,687 63	2,225 16	26,437 77
Genesee	22,679 37	18,545 68	15,607 97	1,049 41	47,556 42	7,227 09	112,665 94
Gladwin	1,425 89	1,038 01	311 27	----------	4,261 25	1,586 99	8,623 41
Gd. Traverse	5,703 31	2,682 02	4,002 69	43 83	21,377 33	2,526 57	36,335 75
Gratiot	13,105 13	6,575 78	10,452 96	119 73	34,548 62	10,310 86	75,113 08
Hillsdale	12,924 27	18,315 61	12,688 89	445 71	28,772 78	5,210 03	78,357 29
Houghton	47,864 26	32,791 43	15,526 31	126 55	40,656 76	2,766 81	139,732 12
Huron	13,335 97	5,288 25	10,967 04	80 61	24,173 32	7,967 96	60,813 15
Ingham	13,199 04	15,665 42	14,057 62	475 69	55,974 54	7,262 39	106,634 70
Ionia	21,552 63	14,777 12	13,036 85	146 82	40,766 47	8,330 43	98,610 32
Iosco	5,251 59	2,014 52	3,237 66	480 64	18,336 82	312 62	29,633 85
Isabella	10,434 85	3,665 42	5,485 75	327 91	23,741 95	6,303 56	49,959 44
Isle Royal	----------	----------	----------	----------	----------	----------	----------
Jackson	21,059 81	19,982 55	16,492 34	1,502 26	62,548 41	12,544 75	134,130 12
Kalamazoo	18,258 01	18,539 31	13,131 17	1,977 48	54,492 44	12,509 32	118,927 73
Kalkaska	4,591 37	3,211 95	2,180 75	84 69	12,460 58	6,544 85	29,074 19
Kent	54,852 83	26,131 76	32,664 03	3,747 27	148,124 39	53,879 27	319,399 55
Keweenaw	4,638 22	3,478 90	2,062 42	283 35	6,840 91	158 93	17,462 73
Lake	4,694 71	1,558 52	1,928 65	8 15	15,053 49	2,169 75	25,413 27
Lapeer	16,996 57	11,785 06	12,823 12	350 52	28,528 06	13,674 54	84,157 87
Leelanaw	2,654 53	887 38	3,009 23	----------	10,281 43	1,613 69	18,446 26
Lenawee	25,178 83	27,006 63	18,653 53	980 64	59,576 66	5,679 95	137,076 24
Livingston	10,890 13	12,787 48	8,599 20	136 36	24,543 17	5,073 23	62,029 57
Mackinac	4,337 76	1,974 89	1,677 16	416 09	11,732 71	4,246 08	24,384 69
Macomb	21,249 41	16,312 34	14,118 74	565 30	17,480 36	24,223 96	93,950 11
Manistee	11,214 40	4,945 02	7,031 14	363 40	35,197 72	1,809 43	60,561 11
Manitou	480 31	72 60	552 80	----------	1,158 08	----------	2,263 79
Marquette	35,090 69	16,416 46	11,035 39	562 31	57,226 69	21,707 10	142,058 64
Mason	9,035 62	3,621 19	4,146 84	311 84	21,732 86	1,162 82	40,011 17
Mecosta	16,538 49	4,775 88	6,282 65	705 17	37,313 09	5,405 80	71,021 08
Menominee	10,516 39	5,652 47	3,920 28	192 98	29,659 37	9,784 06	59,725 55
Midland	5,716 14	1,598 84	3,371 48	----------	19,117 70	2,949 56	32,753 72
Missaukee	5,177 84	2,114 41	502 99	----------	10,592 72	1,662 04	20,050 00
Monroe	18,271 27	15,469 88	15,126 64	153 11	15,501 74	19,763 05	84,345 69

TABLE V.—*Continued.*

Counties.	Moneys on hand Sept. 3, 1883.	One-Mill Tax.	Primary School Interest Fund.	Library Moneys.	District Taxes for all Purposes.	Raised from all other Sources.	Total Resources for the Year.
Montcalm	$27,353 10	$6,527 44	$11,407 52	$220 25	$49,877 58	$4,132 13	$99,518 02
Montmorency	2,101 16	332 89	281 87	----------	3,435 25	1,403 67	7,504 84
Muskegon	32,122 49	8,410 93	13,679 64	472 17	83,789 39	5,432 71	143,907 32
Newaygo	13,180 70	3,362 68	6,973 71	66 70	29,124 83	4,664 37	57,372 99
Oakland	29,154 72	23,345 17	15,044 69	721 27	42,680 97	8,712 02	119,658 84
Oceana	8,334 96	2,988 45	5,518 55	----------	23,569 91	2,148 29	42,560 16
Ogemaw	2,596 79	885 43	951 87	33 05	9,706 71	2,085 08	16,258 93
Ontonagon	8,763 79	2,630 47	2,027 31	28 24	8,025 64	301 66	21,777 11
Osceola	6,945 12	2,825 95	4,822 61	53 39	23,885 97	2,765 21	41,298 25
Oscoda	998 60	349 60	337 80	----------	2,503 54	588 49	4,778 03
Otsego	3,317 06	1,085 68	1,104 47	86 31	10,196 54	1,741 11	17,531 15
Ottawa	16,197 17	11,598 20	16,971 10	653 15	44,434 39	6,249 12	96,103 13
Presque Isle	818 91	948 41	1,314 45	44 18	3,609 52	184 16	6,919 63
Roscommon	1,212 96	860 15	417 76	----------	2,918 00	313 36	5,722 23
Saginaw	35,903 66	12,936 22	28,263 84	896 10	99,160 82	12,098 25	189,258 89
St. Clair	30,531 24	13,115 28	21,892 65	168 21	43,477 98	5,465 53	114,650 89
St. Joseph	13,049 54	17,417 26	11,370 23	382 13	34,034 54	8,781 96	85,035 66
Sanilac	14,016 51	4,863 17	14,370 56	175 45	29,472 69	4,717 47	67,615 85
Schoolcraft	3,846 73	2,461 90	120 39	----------	4,587 79	1,896 26	12,903 07
Shiawassee	15,434 64	11,067 64	11,374 46	182 01	38,863 06	12,558 91	89,481 32
Tuscola	19,404 37	7,950 21	12,478 03	188 19	36,272 38	8,593 71	84,886 89
Van Buren	18,067 89	11,768 80	12,027 76	572 04	39,964 26	6,606 53	89,007 28
Washtenaw	24,394 52	26,719 02	17,150 33	481 54	60,314 45	12,415 35	141,475 21
Wayne	76,953 72	22,950 61	82,372 78	6,788 69	294,047 31	24,969 16	508,082 27
Wexford	8,079 75	2,806 92	3,106 07	183 74	25,238 92	10,310 52	49,725 92

TABLE VI.

Expenditures of School Districts as reported by School Inspectors, for the Year ending September 1, 1884.

Counties.	Paid Teachers.	Paid for Building and Repairs.	Paid for Library books and care of Library.	Paid on Bonded Indebtedness.	Paid for all other Purposes.	Total Expenditures for the Year.	Amount on hand September 1, 1884.
Totals	$2,674,485 17	$729,282 44	$41,965 99	$348,502 46	$842,098 94	$4,636,335 00	$1,008,126 04
Alcona	$8,144 63	$1,058 15	----------	$1,378 28	$2,169 95	$12,751 01	$2,671 13
Allegan	53,174 17	9,172 11	$351 42	2,582 52	14,346 24	79,626 46	17,055 72
Alpena	16,782 30	6,145 48	314 80	----------	5,881 54	29,124 12	3,021 91
Antrim	16,986 07	5,923 30	100 00	2,324 03	6,357 57	31,690 97	3,755 65
Arenac	6,142 10	1,423 97	21 84	448 79	1,358 72	9,400 42	2,849 87
Baraga	5,381 75	656 45	178 09	1,000 00	2,892 30	10,108 59	4,172 33
Barry	36,538 66	7,268 64	330 72	8,087 56	8,173 93	60,399 51	13,849 34
Bay	47,238 83	19,342 45	307 00	8,826 50	19,690 47	95,395 25	20,825 76
Benzie	8,555 49	3,002 56	----------	969 69	1,820 46	14,348 20	2,225 35
Berrien	58,976 56	11,575 65	835 87	10,205 47	16,680 03	98,273 58	19,344 35
Branch	42,914 82	15,644 43	42 42	6,096 59	12,301 47	76,999 73	16,879 96
Calhoun	65,852 41	14,498 05	893 81	23,295 71	15,198 03	119,738 01	11,573 09
Cass	37,709 75	6,273 48	343 85	6,022 66	7,675 72	58,025 46	11,515 70
Charlevoix	13,226 27	5,717 71	5 63	2,579 99	3,749 01	25,278 61	4,842 76
Cheboygan	13,494 93	2,725 34	----------	3,419 51	4,093 42	23,733 20	6,450 05
Chippewa	7,199 08	1,837 95	----------	2,721 45	3,436 00	15,194 48	2,153 73
Clare	8,261 60	2,766 69	11 50	804 76	2,925 73	14,770 28	5,736 76
Clinton	42,024 91	1,998 45	71 45	4,450 00	10,189 55	61,734 36	14,729 52
Crawford	6,556 80	3,210 83	5 00	991 35	7,506 82	18,270 80	3,301 62
Delta	11,745 01	635 01	586 74	1,325 90	6,421 27	20,713 93	3,305 15

TABLE VI.—*Continued.*

Counties.	Paid Teachers.	Paid for Building and Repairs.	Paid for Library books and care of Library.	Paid on Bonded Indebtedness.	Paid for all other Purposes.	Total Expenditures for the Year.	Amount on hand September 1, 1884.
Eaton	$44,730 41	$11,041 62	$15 00	$6,786 98	$9,686 53	$72,260 54	$13,370 02
Emmet	12,487 20	2,816 01	.....	4,463 24	4,078 84	23,845 29	2,592 48
Genesee	60,493 37	8,986 84	1,246 14	11,745 95	14,734 98	97,207 28	15,458 63
Gladwin	3,720 50	1,019 69	.....	608 00	1,102 64	6,450 83	2,172 58
Gd Traverse	19,702 70	4,593 50	10 00	4,862 20	3,391 63	32,560 03	3,775 72
Gratiot	34,488 97	13,990 33	36 87	6,382 80	10,542 41	65,441 38	9,671 70
Hillsdale	45,697 05	7,230 02	43 27	3,793 68	10,084 20	66,848 22	11,509 07
Houghton	48,167 72	4,756 85	338 76	250 00	24,437 35	77,950 68	61,781 44
Huron	27,546 29	9,723 79	227 81	3,964 49	8,323 48	49,785 86	11,027 29
Ingham	51,574 92	13,596 11	490 89	7,270 06	20,053 00	92,981 98	13,649 72
Ionia	51,310 35	9,027 43	96 37	11,254 04	11,965 35	83,653 54	14,956 78
Iosco	12,220 77	2,612 35	12 00	5,849 83	4,407 43	25,102 38	4,531 47
Isabella	23,574 22	5,373 69	26 79	3,267 22	5,920 51	38,162 43	11,797 01
Isle Royal	.....	.....	.....	.....	.....	.....	.....
Jackson	71,025 81	14,878 04	1,135 66	7,750 13	19,319 24	114,108 88	23,021 24
Kalamazoo	57,148 84	13,243 02	1,731 45	9,768 11	21,707 70	103,599 12	15,328 61
Kalkaska	10,886 42	5,900 76	67 86	287 15	3,629 01	20,751 20	8,322 99
Kent	134,188 01	58,628 84	6,282 76	12,710 56	66,546 97	278,357 14	41,042 41
Keweenaw	9,729 38	205 95	100 45	.....	2,724 86	12,760 64	4,702 09
Lake	11,944 31	2,119 96	3 83	2,705 61	4,873 72	21,647 43	3,765 84
Lapeer	44,251 41	17,093 36	100 44	3,481 82	7,927 94	72,854 97	11,302 90
Leelanaw	10,312 45	1,223 33	10 35	1,653 82	2,619 93	15,819 88	2,626 38
Lenawee	74,836 38	13,876 11	807 50	9,560 16	18,846 15	117,926 24	19,150 00
Livingston	33,089 63	5,749 17	25 30	4,761 06	8,102 60	51,727 76	10,301 81
Mackinac	7,449 00	3,026 33	368 09	5,989 13	3,011 67	19,844 22	4,540 47
Macomb	38,768 97	12,754 05	285 36	2,282 97	9,221 96	63,313 31	30,636 80
Manistee	28,045 56	8,547 47	555 03	7,463 67	8,452 57	53,064 30	7,496 81
Manitou	1,165 00	58 10	.....	.....	238 02	1,461 12	802 67
Marquette	49,107 65	29,253 86	778 95	6,137 09	26,506 09	111,783 64	30,275 00
Mason	20,603 89	5,567 88	243 34	1,862 78	5,567 83	33,845 72	6,165 45
Mecosta	30,323 11	7,392 13	857 20	5,385 27	10,760 57	54,718 28	16,302 80
Menominee	20,746 06	13,094 95	103 35	7,247 40	9,889 41	51,081 17	8,644 38
Midland	14,456 97	1,795 50	174 05	3,691 67	5,918 90	26,037 09	6,716 63
Missaukee	8,120 86	2,906 27	4 00	889 43	2,723 10	14,643 66	5,406 34
Monroe	37,470 29	22,633 43	274 95	2,563 72	6,755 68	69,698 07	14,647 62
Montcalm	51,946 56	5,347 11	278 71	9,093 97	11,845 19	78,511 54	21,006 48
M'tmorency	2,581 11	1,129 76	.....	481 20	1,316 03	5,508 10	1,906 74
Muskegon	55,510 36	36,644 42	839 38	13,042 22	21,229 63	127,264 01	16,643 31
Newaygo	25,732 40	6,949 36	71 98	4,601 96	6,943 10	44,298 80	13,074 19
Oakland	64,140 87	16,734 90	26 93	8,782 97	16,285 12	105,970 79	13,688 05
Oceana	22,288 52	4,622 18	7 00	2,282 86	4,972 03	34,172 59	8,387 57
Ogemaw	7,556 42	2,239 02	.....	155 90	2,608 13	12,559 47	3,699 46
Ontonagon	9,957 75	899 41	10 85	.....	2,353 44	13,221 45	8,555 66
Osceola	22,389 99	3,726 22	32 00	2,218 51	5,014 27	33,380 99	7,917 26
Oscoda	1,850 59	1,382 54	.....	.....	814 51	4,047 64	730 39
Otsego	7,417 58	2,411 84	49 14	2,710 89	2,348 60	14,938 05	2,593 10
Ottawa	51,777 10	9,959 92	661 32	4,457 82	14,706 93	81,563 09	14,540 04
Presque Isle	3,341 00	404 72	262 95	30 00	1,806 20	5,844 87	1,074 76
Roscommon	2,675 50	197 52	.....	.....	1,186 33	4,059 35	1,662 88
Saginaw	90,504 21	28,588 76	1,338 49	3,407 85	28,055 66	151,984 97	37,273 92
St. Clair	55,557 17	3,391 41	365 66	4,166 75	23,844 28	87,325 27	27,325 62
St. Joseph	47,638 45	9,036 28	600 68	3,641 07	14,302 78	75,219 26	9,816 40
Sanilac	36,547 75	5,321 43	32 22	5,222 70	8,267 30	55,391 40	12,224 45
Schoolcraft	4,571 00	2,257 28	.....	161 00	1,599 67	8,588 95	4,314 12
Shiawassee	41,356 24	13,738 04	60 40	6,253 06	10,354 14	71,761 88	17,719 44
Tuscola	38,573 46	5,733 06	111 63	8,254 22	10,872 76	63,545 13	21,341 76
Van Buren	48,856 88	9,693 85	59 27	4,903 30	10,505 57	74,018 87	14,988 41
Washtenaw	77,618 86	18,496 15	600 09	5,688 78	24,656 42	127,060 30	14,414 91
Wayne	230,043 09	65,558 27	15,691 78	3,036 67	83,479 34	397,809 15	110,273 13
Wexford	17,691 70	16,222 55	11 55	1,688 02	5,801 01	41,414 83	8,311 09

TABLE VII.

Miscellaneous Financial Statistics, as reported by School Inspectors for the Year ending September 1, 1884.

Counties.	Bonded Indebtedness of the Districts.	Total Indebtedness of the Districts.	Amount due the Districts.	Amount of Non-Resident Tuition Received by the Districts.	Amount paid and due Inspectors and members of School Boards for services.	Am't paid and due T'p Chairman and officers of School Boards for services.
Totals	$1,396,083 43	$1,513,699 88	$159,758 46	$51,652 31	$17,813 85	$24,907 12
Alcona	$216 00	$698 78	$202 60		$77 00	$44 00
Allegan	6,720 38	8,813 77	4,051 97	$2,305 33	363 25	359 75
Alpena	130 00	405 99	400 00		169 00	220 02
Antrim	7,785 00	14,123 70	863 26	62 95	161 00	157 00
Arenac	1,101 00	1,402 12	234 30	17 90	138 64	124 29
Baraga	6,300 00	6,434 76			10 40	10 00
Barry	36,972 90	38,785 49	896 97	994 45	304 00	288 50
Bay	4,346 00	10,657 99	918 67	41 00	195 50	139 25
Benzie	922 00	1,982 27	936 32	24 16	60 10	102 50
Berrien	37,975 77	38,361 67	7,773 86	1,156 04	292 25	235 20
Branch	21,200 00	22,252 13	1,973 26	1,315 33	197 25	434 75
Calhoun	82,264 00	83,476 14	1,034 43	2,040 54	323 90	504 50
Cass	11,231 38	13,068 51	1,914 14	463 40	190 75	311 25
Charlevoix	11,178 34	13,181 47	1,082 75	22 00	178 35	128 10
Cheboygan	13,450 00	14,276 95	1,671 50	95 18	225 50	122 09
Chippewa	7,573 33	8,212 09	986 25	6 50	117 44	43 76
Clare	3,154 60	4,084 68	1,982 86		91 25	50 00
Clinton	6,725 00	8,450 35	2,228 89	961 45	319 45	397 51
Crawford	5,407 32	6,431 50	813 46		81 00	90 50
Delta	33,808 15	34,612 73	116 63		78 70	200 90
Eaton	31,500 00	32,322 87	2,766 63	1,390 80	226 25	427 60
Emmet	9,330 50	10,144 84	3,318 22	10 00	180 00	92 50
Genesee	77,606 02	79,067 11	257 52	2,483 41	297 75	651 25
Gladwin	2,971 86	3,821 61	862 58		72 25	45 00
Grand Traverse	9,301 35	10,973 96	1,862 18	327 85	161 75	123 25
Gratiot	39,167 84	39,691 36	2,056 95	611 57	495 55	306 50
Hillsdale	2,990 86	3,602 70	1,470 81	1,335 11	349 79	437 12
Houghton	16,000 00	16,275 00	1,724 97	478 50	160 00	89 50
Huron	19,014 50	21,132 23	1,725 38	54 96	250 00	282 00
Ingham	64,964 18	66,589 72	1,120 97	1,134 11	257 13	325 88
Ionia	25,188 83	25,910 87	862 40	1,753 56	201 20	284 25
Iosco	7,600 00	9,151 73	2,813 48	14 00	77 00	41 50
Isabella	21,961 81	22,879 97	3,770 17	80 12	300 87	226 00
Isle Royal						
Jackson	13,376 85	14,155 87	1,437 58	1,822 50	189 25	271 58
Kalamazoo	25,168 06	26,733 52	1,090 77	1,514 91	650 50	273 25
Kalkaska	6,736 00	7,444 89	750 57	51 37	213 50	124 00
Kent	157,834 29	159,741 39	2,500 48	2,114 39	347 90	935 85
Keweenaw		20 00	994 71		78 50	40 00
Lake	6,565 00	7,417 20	752 10	67 00	205 80	167 20
Lapeer	14,170 62	15,675 36	1,569 38	1,123 60	408 75	385 00
Leelanaw	1,825 00	2,187 00	1,093 71	315 65	200 41	128 66
Lenawee	17,589 00	18,832 15	1,097 47	1,700 34	435 00	623 75
Livingston	14,125 14	20,344 90	674 74	1,259 64	305 25	298 25
Mackinac	9,500 00	9,977 34	925 61		84 00	141 30
Macomb	27,725 00	28,214 28	371 11	1,023 15	253 50	183 75
Manistee	12,450 00	14,244 70	1,850 04	67 26	123 00	85 00
Manitou	85 00	129 15	314 65		34 00	18 00
Marquette	78,262 00	88,425 15	1,911 18	1,181 08	256 00	608 00
Mason	10,424 00	10,690 14	733 98	36 15	126 75	279 41
Mecosta	10,046 35	11,235 28	3,733 76	239 60	284 50	428 28
Menominee	26,093 66	26,584 78	1,150 43	55	124 50	229 60
Midland	8,114 45	11,079 65	8,866 65	71 00	198 45	132 25
Missaukee	2,178 34	3,510 95	1,300 22		235 96	163 77
Monroe	21,250 26	22,325 02	523 03	506 65	430 02	481 90

TABLE VII.—*Continued.*

Counties.	Bonded Indebtedness of the Districts.	Total Indebtedness of the Districts.	Amount due the Districts.	Amount of Non-Resident Tuition Received by the Districts.	Amount paid and due Inspectors and members of School Boards for services.	Am't paid and due T'p Chairmen and officers of School Boards for services.
Montcalm	$4,311 33	$6,215 82	$7,050 78	$432 67	$414 35	$366 50
Montmorency	1,000 00	2,231 09	3,119 64	.....	138 96	67 82
Muskegon	26,681 66	27,153 12	2,381 18	249 50	261 75	247 75
Newaygo	10,860 64	11,621 07	4,650 80	107 78	446 65	286 05
Oakland	18,535 05	21,884 36	1,457 76	3,055 71	546 92	415 75
Oceana	1,999 45	1,454 36	2,563 64	152 00	262 15	217 00
Ogemaw	1,333 78	3,607 66	3,246 01	.....	141 30	81 80
Ontonagon	200 00	275 38	200 00	.....	39 00	30 00
Osceola	7,815 26	9,160 62	2,599 44	28 00	298 70	214 55
Oscoda	289 00	1,694 33	2,088 03	.....	73 50	55 50
Otsego	5,082 00	5,875 96	652 73	12 10	162 95	92 50
Ottawa	24,787 80	27,319 05	3,165 30	327 47	175 75	333 92
Presque Isle	2,600 00	6,399 23	627 89	2 25	130 25	123 50
Roscommon	818 75	818 75	154 23	.....	57 00	36 00
Saginaw	17,815 00	19,326 28	16,780 62	386 63	344 75	1,702 35
St. Clair	16,054 22	16,837 80	1,952 92	358 75	340 00	367 85
St. Joseph	10,110 50	11,265 44	465 16	2,253 86	332 78	404 53
Sanilac	24,481 09	27,929 77	3,928 33	79 22	357 75	431 00
Schoolcraft	4,200 00	4,854 00	2,813 84	.....	26 50	58 00
Shiawassee	36,804 64	37,422 29	1,227 20	912 90	80 50	334 50
Tuscola	23,798 00	25,233 67	4,012 57	443 04	310 00	292 50
Van Buren	17,825 00	19,598 33	2,729 03	976 03	322 90	362 00
Washtenaw	17,650 00	19,852 15	1,474 73	7,024 51	317 00	604 32
Wayne	25,973 34	28,520 46	796 56	2,560 58	242 75	4,181 25
Wexford	6,208 98	6,904 11	1,293 52	14 25	199 88	332 25

TABLE VIII.—PART I.

Length of School Term by Districts, as reported by School Inspectors for the School Year ending September 1, 1884.

Counties.	No School.		Less than three Months.			Three Months.			Four Months.		
	No. Districts.	School census.	No. Districts.	School census.	Total enrollment.	No. Districts.	School census.	Total enrollment.	No. Districts.	School census.	Total enrollment.
Totals	87	986	4	47	35	169	3,070	2,202	165	3,111	2,306
Alcona	.....	.....	.....	.....	.....	.....	.....	.....	1	16	12
Allegan	.....	.....	.....	.....	.....	.....	.....	.....	1	16	11
Alpena	1	10	.....	.....	.....	5	89	73	3	69	40
Antrim	.....	.....	1	6	4	3	66	47	2	23	12
Arenac	.....	.....	.....	.....	.....	.....	.....	.....	2	33	20
Baraga	1	.....	.....	.....	.....	1	19	6	1	31	12
Barry	.....	.....	.....	.....	.....	.....	.....	.....	1	13	5
Bay	2	42	.....	.....	.....	.....	.....	.....	1	22	14
Benzie	.....	.....	.....	.....	.....	5	58	34	3	34	22
Berrien	.....	.....	.....	.....	.....	.....	.....	.....	1	21	15
Branch	.....	.....	.....	.....	.....	.....	.....	.....	1	28	23
Calhoun	.....	.....	.....	.....	.....	2	41	33	1	16	11
Cass	1	35	.....	.....	.....	1	12	12	2	19	14
Charlevoix	2	.....	.....	.....	.....	4	43	30	7	104	62
Cheboygan	3	51	.....	.....	.....	3	26	20	2	48	31
Chippewa	4	154	.....	.....	.....	4	106	83	3	73	42
Clare	3	2	.....	.....	.....	1	15	10	5	89	74
Clinton	.....	.....	.....	.....	.....	.....	.....	.....	1	24	16
Crawford	2	13	.....	.....	.....	5	32	26	6	51	41
Delta	1	.....	.....	.....	.....	2	49	34	.....	.....	.....

TABLE VIII.—PART I.—*Continued.*

Counties.	No School.		Less than three Months.			Three Months.			Four Months.		
	No. Districts.	School census.	No. Districts.	School census.	Total enrollment.	No. Districts.	School census.	Total enrollment.	No. Districts.	School census.	Total enrollment.
Eaton	------	------	------	------	------	1	29	20	1	36	38
Emmet	------	------	------	------	------	11	168	135	7	108	79
Genesee	------	------	------	------	------	------	------	------	------	------	------
Gladwin	1	6	------	------	------	1	8	8	4	52	36
Grand Traverse	1	65	------	------	------	3	45	40	3	71	52
Gratiot	------	------	------	------	------	3	165	91	2	29	37
Hillsdale	------	------	1	20	24	------	------	------	1	24	13
Houghton	3	------	------	------	------	------	------	------	------	------	------
Huron	1	36	------	------	------	1	29	15	1	10	9
Ingham	------	------	------	------	------	------	------	------	------	------	------
Ionia	------	------	------	------	------	1	16	13	1	14	10
Iosco	3	6	------	------	------	1	5	9	1	25	19
Isabella	------	------	------	------	------	2	42	27	4	87	69
Isle Royal	------	------	------	------	------	------	------	------	------	------	------
Jackson	------	------	------	------	------	1	62	13	------	------	------
Kalamazoo	------	------	------	------	------	1	12	11	6	144	94
Kalkaska	3	4	------	------	------	6	113	77	2	47	35
Kent	3	32	------	------	------	1	11	5	1	26	17
Keweenaw	------	------	1	6	2	1	12	7	------	------	------
Lake	1	------	------	------	------	4	36	24	2	15	14
Lapeer	1	38	------	------	------	1	43	23	------	------	------
Leelanaw	2	------	------	------	------	3	110	61	4	87	63
Lenawee	------	------	------	------	------	2	48	37	1	6	13
Livingston	------	------	------	------	------	1	34	30	4	91	60
Mackinac	4	77	------	------	------	7	151	112	5	85	75
Macomb	------	------	------	------	------	------	------	------	1	94	22
Manistee	2	------	------	------	------	3	22	13	4	89	68
Manitou	------	------	------	------	------	------	------	------	------	------	------
Marquette	1	14	------	------	------	1	43	44	1	13	8
Mason	1	------	------	------	------	3	64	46	2	33	21
Mecosta	1	55	------	------	------	3	36	42	------	------	------
Menominee	1	------	------	------	------	1	10	8	------	------	------
Midland	3	43	1	6	5	2	52	28	1	16	14
Missaukee	2	14	------	------	------	5	61	45	3	23	26
Monroe	------	------	------	------	------	------	------	------	------	------	------
Montcalm	------	------	------	------	------	------	------	------	------	------	------
Montmorency	6	3	------	------	------	3	34	28	------	------	------
Muskegon	1	2	------	------	------	5	98	58	4	78	64
Newaygo	1	41	------	------	------	2	28	22	4	91	64
Oakland	------	------	------	------	------	3	43	26	12	201	187
Oceana	1	8	------	------	------	2	14	14	1	30	23
Ogemaw	4	21	------	------	------	4	58	76	2	27	22
Ontonagon	1	------	------	------	------	1	9	7	------	------	------
Osceola	4	38	------	------	------	2	31	25	2	41	37
Oscoda	2	15	------	------	------	6	102	71	9	106	101
Otsego	1	30	------	------	------	5	54	35	2	39	25
Ottawa	------	------	------	------	------	1	18	8	1	20	15
Presque Isle	3	49	------	------	------	7	189	150	2	51	27
Roscommon	3	20	------	------	------	2	25	19	1	12	13
Saginaw	------	------	------	------	------	4	84	56	2	43	36
St. Clair	------	------	------	------	------	------	------	------	------	------	------
St. Joseph	------	------	------	------	------	------	------	------	------	------	------
Sanilac	------	------	------	------	------	2	50	41	1	49	27
Schoolcraft	1	11	------	------	------	2	37	29	2	38	18
Shiawassee	------	------	------	------	------	1	31	22	------	------	------
Tuscola	------	------	------	------	------	2	37	23	------	------	------
Van Buren	2	45	------	------	------	4	99	63	2	62	46
Washtenaw	------	------	------	------	------	------	------	------	2	34	28
Wayne	------	------	------	------	------	------	------	------	2	55	43
Wexford	3	6	------	------	------	5	46	38	8	179	164

TABLE VIII.—PART II.

Length of School Term by Districts as reported by School Inspectors, for the School Year ending September 1, 1884.

Counties.	Five Months.			Six Months.			Seven Months.		
	No. Districts.	School Census.	Total Enrollment.	No. Districts.	School Census.	Total Enrollment.	No. Districts.	School Census.	Total Enrollment.
Totals	261	10,675	6,778	701	26,706	19,704	1,406	62,532	47,978
Alcona	1	28	17				1	80	60
Allegan	4	198	100	13	504	396	62	3,115	2,389
Alpena	3	101	66	2	57	*48			
Antrim	5	172	132	11	324	237	20	614	498
Arenac				2	71	56	3	28	99
Baraga	1	15	15						
Barry	5	274	229	18	757	582	40	1,590	1,648
Bay				5	428	201	5	366	246
Benzie				11	293	280	11	350	300
Berrien	5	263	175	24	1,118	848	33	1,697	1,284
Branch	1	70	49	7	266	204	27	1,071	866
Calhoun	3	41	38	7	221	174	33	1,202	989
Cass	2	84	51	4	179	149	24	833	682
Charlevoix	9	270	170	11	330	252	11	493	330
Cheboygan	9	227	168	12	522	309	3	163	128
Chippewa	3	135	100	1	30	26			
Clare	3	68	56	1	13	7	6	179	143
Clinton	5	466	119	13	540	421	24	1,043	802
Crawford	3	41	39	8	117	96	7	133	134
Delta				8	327	232	2	161	125
Eaton	5	180	148	19	715	594	32	1,329	1,085
Emmet	7	332	116	16	359	310	12	400	327
Genesee	2	62	63	5	162	119	51	2,164	1,743
Gladwin				2	50	36	3	49	47
G'd Traverse	4	112	77	4	169	147	30	1,333	1,034
Gratiot	1	33	28	15	573	481	48	2,543	2,027
Hillsdale	6	200	141	12	429	363	33	1,402	1,193
Houghton									
Huron	11	921	387	16	1,397	697	20	1,236	789
Ingham	3	103	83	9	381	318	20	808	658
Ionia	2	96	50	12	551	444	39	1,857	1,478
Iosco	2	43	35	6	226	155			
Isabella	4	148	112	21	744	518	27	1,380	1,066
Isle Royal									
Jackson	4	146	103	7	226	152	19	729	562
Kalamazoo	6	170	137	13	377	277	27	1,070	781
Kalkaska	2	18	15	17	437	352	11	229	184
Kent	4	153	104	11	442	346	47	2,186	1,651
Keweenaw									
Lake	3	63	32	9	129	97	11	256	228
Lapeer	1	52	25*	6	242	183	21	878	741
Leelanaw	17	755	486	9	412	303	12	547	385
Lenawee	4	104	85	13	536	420	34	1,467	1,170
Livingston	2	39	25	9	296	247	27	1,036	814
Mackinac	2	32	23				1	41	30
Macomb	1	52	13	6	374	202	24	1,009	683
Manistee	4	115	83	7	180	130	11	575	418
Manitou				1	97	66			
Marquette	1	23	17	7	180	108	2	100	74
Mason	2	23	19	9	245	176	10	460	346
Mecosta	4	164	122	14	504	397	25	1,167	821
Menominee	2	100	61	1	21	16	4	203	136
Midland	2	35	21	9	279	214	13	433	307
Milwaukee	3	65	51	6	94	82	6	177	151
Monroe	5	223	156	13	767	542	31	1,969	1,423

TABLE VIII.—PART II.—*Continued.*

Counties.	Five Months.			Six Months.			Seven Months.		
	No. Districts.	School Census.	Total Enrollment.	No. Districts.	School Census.	Total Enrollment.	No. Districts.	School Census.	Total Enrollment.
Montcalm	3	133	96	11	387	321	16	901	716
Montmorency	----	----	----	3	21	22	1	26	22
Muskegon	5	200	154	14	525	425	23	961	725
Newaygo	7	232	199	13	695	509	18	647	538
Oakland	4	137	119	10	229	201	54	1,826	1,411
Oceana	3	71	60	17	593	463	35	1,672	1,282
Ogemaw	----	----	----	5	88	75	6	153	135
Ontonagon	----	----	----	1	12	9	----	----	----
Osceola	7	251	160	16	394	298	16	731	517
Oscoda	2	29	32	3	75	79	1	12	9
Otsego	3	68	42	7	141	121	6	150	122
Ottawa	4	206	146	12	538	389	26	1,370	1,015
Presque Isle	9	674	269	----	----	----	2	42	31
Roscommon	----	----	----	2	21	21	1	10	10
Saginaw	6	342	222	18	782	595	24	1,467	878
St. Clair	2	36	24	16	831	525	22	1,298	872
St. Joseph	3	92	65	12	392	292	16	613	496
Sanilac	5	503	306	11	617	441	16	1,046	719
Schoolcraft	2	78	53	2	76	49	----	----	----
Shiawassee	3	115	84	8	387	289	28	1,351	1,049
Tuscola	2	81	57	12	532	397	36	1,935	1,379
Van Buren	6	201	177	14	502	412	38	1,635	1,350
Washtenaw	3	81	49	15	682	499	28	1,019	734
Wayne	1	59	55	4	210	136	16	989	549
Wexford	3	66	62	8	185	146	14	418	344

TABLE VIII.—PART III.

Length of School Term by Districts, as reported by School Inspectors, for the School Year ending September 1, 1884.

Counties.	Eight Months.			Nine Months.			Ten Months.		
	Number Districts.	School Census.	Total Enrollment.	Number Districts.	School Census.	Total Enrollment.	Number Districts.	School Census.	Total Enrollment.
Totals	1,967	103,631	78,634	1,553	124,041	95,623	502	242,264	151,711
Alcona	1	21	12	7	402	294	7	632	399
Allegan	64	3,604	2,911	34	3,336	2,845	6	1,745	1,554
Alpena	5	538	345	4	332	222	1	2,528	1,585
Antrim	9	411	265	8	746	644	2	467	351
Arenac	7	405	305	6	399	296	2	194	176
Baraga	2	137	71	1	36	32	3	538	417
Barry	52	2,439	1,907	22	1,197	1,015	9	1,666	1,551
Bay	12	1,028	519	14	978	636	9	11,546	5,738
Benzie	4	187	149	2	422	301	1	117	100
Berrien	51	2,958	2,362	35	6,110	4,801	----	----	----
Branch	54	2,389	2,050	36	2,343	1,977	3	1,828	1,548
Calhoun	65	2,504	2,078	47	6,155	4,561	8	1,774	1,269
Cass	35	1,707	1,434	45	2,599	2,063	2	911	758
Charlevoix	12	686	500	6	919	621	1	47	34
Cheboygan	5	323	170	5	173	146	5	1,645	956
Chippewa	7	537	300	4	258	199	4	1,070	840
Clare	1	12	9	9	681	579	2	339	270
Clinton	48	2,782	2,150	34	2,165	1,844	5	1,553	1,447
Crawford	1	13	12	4	219	170	----	----	----
Delta	2	65	52	2	103	58	6	1,636	991

TABLE VIII.—PART III.—*Continued.*

Counties.	Eight Months.			Nine Months.			Ten Months.		
	Number Districts.	School Census.	Total Enrollment.	Number Districts.	School Census.	Total Enrollment.	Number Districts.	School Census.	Total Enrollment.
Eaton	63	3,153	2,676	23	2,301	1,953	3	1,608	1,560
Emmet	1	34	32	1	337	264	1	778	571
Genesee	68	3,550	2,855	25	4,017	3,697	8	1,865	1,490
Gladwin	3	34	40	5	281	200			
Grand Traverse	8	412	321	5	980	896	1	85	51
Gratiot	35	2,186	1,690	13	975	756	4	1,760	1,595
Hillsdale	56	2,384	2,037	52	2,963	2,585	8	2,060	1,426
Houghton				1	23	19	16	8,731	5,485
Huron	23	1,706	1,050	15	1,128	744	11	2,347	1,456
Ingham	52	2,527	1,989	43	2,435	1,928	8	4,365	3,320
Ionia	49	2,418	1,967	33	2,924	2,486	8	1,941	1,710
Iosco	5	135	106	2	97	93	5	2,320	1,453
Isabella	18	1,049	784	13	892	617	3	789	485
Isle Royal									
Jackson	49	2,050	1,671	66	3,289	2,640	12	6,264	4,829
Kalamazoo	51	2,092	1,580	32	1,989	1,893	3	4,117	2,796
Kalkaska	7	240	191	1	28	27	2	342	270
Kent	69	3,563	2,651	58	3,766	2,905	18	15,436	10,492
Keweenaw				5	920	674	4	532	418
Lake	12	561	497	4	200	159	2	596	488
Lapeer	44	2,565	2,023	53	3,840	2,965	9	2,258	1,993
Leelanaw	4	276	251	1	129	110	1	132	94
Lenawee	72	3,540	2,869	55	3,962	3,144	18	4,634	3,231
Livingston	46	1,880	1,595	37	1,735	1,512	8	1,376	1,229
Mackinac	2	320	203	1	649	425	2	124	90
Macomb	36	2,170	1,355	30	3,051	1,927	15	4,142	2,298
Manistee	8	486	366	6	357	266	6	3,899	2,072
Manitou	1	121	53				2	190	139
Marquette	3	252	156	4	236	113	19	8,564	5,956
Mason	12	665	482	11	822	610	1	1,613	1,244
Mecosta	21	1,045	730	20	1,607	1,148	1	1,468	1,269
Menominee	3	209	158	6	566	324	12	3,333	2,404
Midland	12	707	488	11	744	523	1	628	507
Missaukee	5	153	118	4	144	123	2	62	48
Monroe	48	3,250	2,197	34	2,900	2,089	6	2,696	1,117
Montcalm	35	2,058	1,476	50	3,773	2,851	15	3,531	3,022
Montmorency	5	120	107	1	10	9	1	15	14
Muskegon	11	536	410	16	1,184	998	8	7,854	5,068
Newaygo	27	1,482	1,157	15	1,169	901	5	1,240	897
Oakland	75	2,764	2,183	39	1,917	1,585	21	4,456	3,874
Oceana	16	918	696	8	615	459	2	686	643
Ogemaw	5	92	73	7	413	387	2	80	50
Ontonagon				1	57	37	6	1,000	751
Osceola	23	1,202	831	9	654	485	3	1,198	856
Oscoda				1	19	17			
Otsego	4	266	202	3	258	206	3	158	113
Ottawa	26	1,708	1,320	26	2,987	2,265	23	6,197	4,306
Presque Isle	1	33	24				1	152	93
Roscommon	1	26	20	3	318	211			
Saginaw	47	3,014	1,942	31	3,077	1,878	11	14,197	7,569
St. Clair	59	3,830	2,678	41	4,535	3,002	11	6,367	3,768
St. Joseph	40	1,694	1,343	42	2,186	1,786	11	2,908	2,554
Sanilac	32	2,209	1,528	53	5,221	3,631	9	1,533	1,162
Schoolcraft	1	53	44	1	43	36	3	391	245
Shiawassee	51	2,951	2,319	23	1,308	1,077	8	2,580	2,238
Tuscola	41	2,925	2,104	32	3,180	2,384	6	1,692	1,314
Van Buren	50	2,527	2,060	36	3,208	2,660	5	1,047	940
Washtenaw	52	2,404	1,718	50	2,373	1,924	15	6,131	4,605
Wayne	28	1,848	1,166	61	4,942	3,368	35	56,417	23,380
Wexford	14	492	422	9	474	347	2	1,098	688

TABLE IX.

Statistics of Township Libraries, as reported by School Inspectors, for the year ending September 1, 1884.

Counties.	No. of Townships using Library Moneys for General School purposes.	No. of Townships forfeiting Library Moneys.	No. of Townships Maintaining Libraries.	No. of Volumes added to Township Libraries during year.	Whole No. of Volumes in Township Libraries.	Amount paid for books and care of Township Libraries.	Amount of Taxes voted for Township Libraries.	Amount of Fines, etc., received from County Treasurers for Township Libraries.
Totals	444	277	460	10,085	102,658	$13,261 53	$2,538 62	$14,560 25
Alcona	-------	2	2	100	680	$50 00	$15 00	$50 00
Allegan	11	5	10	263	1,772	367 58	-------	304 63
Alpena	2	-------	4	25	459	-------	-------	28 57
Antrim	2	2	10	91	1,652	122 16	70 00	70 23
Arenac	2	6	1	-------	20	-------	-------	2 27
Baraga	3	-------	3	64	462	100 29	-------	9 52
Barry	8	5	4	28	1,086	24 08	-------	131 21
Bay	1	3	7	66	1,656	223 61	-------	140 84
Benzie	-------	3	8	26	905	75 11	-------	81 00
Berrien	9	4	7	338	2,405	362 12	500 00	262 02
Branch	11	2	4	79	926	146 30	100 00	104 73
Calhoun	15	2	5	150	890	53 45	50 00	118 64
Cass	9	3	5	36	1,543	31 61	-------	183 26
Charlevoix	6	2	8	7	985	75 25	35 00	28 61
Cheboygan	2	4	8	123	786	188 53	20 00	244 44
Chippewa	2	6	2	-------	30	-------	-------	101 85
Clare	1	1	6	150	649	231 61	-------	103 24
Clinton	12	1	4	32	612	30 00	-------	190 80
Crawford	2	4	3	62	328	82 00	50 00	106 35
Delta	3	6	4	3	529	-------	-------	-------
Eaton	6	2	9	246	3,569	128 99	-------	64 77
Emmet	3	3	8	254	922	300 30	25 00	297 48
Genesee	14	3	2	-------	318	36 00	-------	124 32
Gladwin	1	6	1	-------	192	10 00	36 37	-------
Grand Traverse	1	5	7	359	1,277	340 92	-------	90 94
Gratiot	15	2	1	-------	83	-------	-------	15 79
Hillsdale	17	-------	1	-------	160	10 00	5 00	82 70
Houghton	2	1	4	355	2,389	491 29	-------	329 36
Huron	10	6	11	142	1,401	125 26	25 00	86 01
Ingham	12	4	-------	-------	-------	-------	-------	77 68
Ionia	15	1	5	10	228	-------	-------	81 84
Iosco	2	5	5	4	1,168	-------	-------	884 68
Isabella	5	3	9	218	957	257 71	-------	234 45
Isle Royal	-------	-------	-------	-------	-------	-------	-------	-------
Jackson	16	2	1	50	669	41 68	-------	299 88
Kalamazoo	9	3	4	154	1,635	219 29	25 00	392 88
Kalkaska	5	2	6	8	269	27 00	-------	55 14
Kent	11	4	9	345	3,457	593 95	-------	580 30
Keweenaw	3	2	4	-------	1,542	25 00	-------	169 54
Lake	1	3	9	423	1,375	562 66	250 00	328 51
Lapeer	7	4	6	109	1,462	148 78	-------	130 10
Leelanaw	-------	-------	10	2	1,604	70 70	5 00	173 69
Lenawee	10	5	8	373	8,431	385 31	-------	390 88
Livingston	11	2	3	7	1,452	65 56	-------	76 17
Mackinac	1	4	3	-------	620	65 00	-------	48 00
Macomb	4	5	6	177	1,313	210 07	-------	368 59
Manistee	3	2	9	394	1,623	188 52	-------	186 85
Manitou	2	1	-------	-------	-------	-------	-------	-------
Marquette	6	4	7	262	1,637	341 23	-------	72 75
Mason	2	1	11	99	2,259	172 50	46 18	43 48
Mecosta	8	2	6	227	659	246 71	-------	802 06
Menominee	-------	4	4	360	2,199	599 17	107 50	-------
Midland	2	6	7	-------	549	17 60	-------	-------
Missaukee	1	3	7	117	537	196 92	100 00	63 03
Monroe	2	4	9	61	1,932	126 23	-------	56 12

TABLE IX.—*Continued.*

Counties.	No. of Townships using Library Moneys for General School purposes.	No. of Townships forfeiting Library Moneys.	No. of Townships Maintaining Libraries.	No. of Volumes added to Township Libraries during year.	Whole No. of Volumes in Township Libraries.	Amount paid for books and care of Township Libraries.	Amount of Taxes voted for Township Libraries.	Amount of Fines, etc., received from County Treasurer for Township Libraries.
Montcalm	7	4	9	451	1,732	$673 01	....	$395 35
Montmorency	.....	2	2	.....	178	52 00	....	30
Muskegon	4	3	13	132	2,657	352 87	$100 00	334 71
Newaygo	5	5	14	398	1,957	293 45	30 00	362 51
Oakland	14	7	5	222	1,853	182 34	....	185 54
Oceana	1	2	14	304	2,659	372 65	215 00	194 67
Ogemaw	.....	10	1	80	80	65 00	....	....
Ontonagon	1	4	1	.....	45	10 85	....	....
Osceola	4	2	11	308	1,740	509 12	....	97 89
Oscoda	3	6	.....	.....	.....	....	....	....
Otsego	.....	3	5	52	1,383	226 50	....	47 70
Ottawa	5	3	7	153	2,027	273 52	....	270 25
Presque Isle	5	3	3	57	188	64 07	50 00	39 98
Roscommon	1	4	.....	.....	.....	....	....	....
Saginaw	11	7	10	283	3,793	431 20	150 07	214 23
St. Clair	6	6	9	77	1,896	95 36	3 50	163 70
St. Joseph	12	1	4	101	1,667	228 70	50 00	244 13
Sanilac	9	7	12	77	1,287	73 66	25 00	78 01
Schoolcraft	3	3	1	102	102	....	100 00	....
Shiawassee	12	2	2	76	654	86 00	50 00	116 65
Tuscola	8	5	12	211	1,806	284 27	....	434 21
Van Buren	8	2	10	209	2,402	285 91	200 00	712 76
Washtenaw	13	4	6	160	2,191	218 42	....	87 95
Wayne	3	13	3	41	3,076	121 50	....	1,560 36
Wexford	1	4	10	181	1,022	201 68	100 00	149 15

TABLE X.

Statistics of District Libraries, as reported by School Inspectors for the Year ending September 1, 1884.

Counties.	No. Districts of less than 100 children reporting libraries.	No. of Volumes reported in such libraries.	No. Districts of 100 or more children maintaining libraries.	No. of Volumes added to last mentioned libraries during year.	Whole No. of Volumes in such libraries.	Amount paid for support of such libraries.	Amount of fines, etc., received from County Treasurers for such libraries.
Totals	944	51,318	276	17,966	193,581	$37,641 28	$17,524 71
Alcona	.....	.....	.....	.....	.....	....	....
Allegan	43	1,633	17	119	1,780	$184 94	$214 30
Alpena	.....	.....	3	312	1,556	314 80	155 61
Antrim	2	19	1	61	112	100 00	....
Arenac	8	266	1	.....	43	....	12 07
Baraga	.....	.....	1	40	52	77 80	50 00
Barry	10	257	1	97	657	310 22	31 10
Bay	4	359	7	728	12,424	286 00	518 02
Benzie	1	4	.....	.....	.....	....	....
Berrien	28	691	8	236	1,850	404 43	333 10
Branch	26	868	1	225	225	....	6 81
Calhoun	46	3,183	4	1,145	7,932	748 66	358 78
Cass	43	1,911	4	185	970	174 21	155 53
Charlevoix	2	33	.....	.....	.....	....	....
Cheboygan	.....	.....	.....	.....	.....	....	....
Chippewa	1	18	1	.....	28	....	....
Clare	1	70	.....	.....	.....	....	....
Clinton	9	160	3	10	225	50 00	51 68
Crawford	.....	.....	.....	.....	.....	....	....
Delta	.....	.....	1	589	589	586 74	500 00

TABLE X.—*Continued.*

Counties.	No. Districts of less than 100 children reporting libraries.	No. of Volumes reported in such libraries.	No. Districts of 100 or more children maintaining libraries.	No. of Volumes added to last mentioned libraries during year.	Whole No. of Volumes in such libraries.	Amount paid for support of such libraries.	Amount of fines, etc., received from County Treasurers for such libraries.
Eaton	1	12	1	24	255	$15 00	$22 68
Emmet			1	49	50		
Genesee	28	1,067	6	680	5,096	1,158 76	274 78
Gladwin							
Grand Traverse	7	314					
Gratiot	10	329	4	64	501		1 00
Hillsdale	31	782	3	28	325	29 00	102 91
Houghton			5	150	1,325	295 60	29 94
Huron	2	28	9	195	863	135 95	11 01
Ingham	9	192	4	103	4,002	433 82	223 00
Ionia	9	214	3	15	283	24 80	43 90
Iosco	2	21	2		120		
Isabella	7	269	1		22		
Isle Royal							
Jackson	34	1,512	9	715	3,377	995 14	833 90
Kalamazoo	65	3,401	6	687	11,216	1,587 55	953 52
Kalkaska	9	458	1	27	182	62 86	30 63
Kent	20	539	10	1,652	16,855	6,203 04	1,333 95
Keweenaw			2	170	1,325	100 45	258 46
Lake							
Lapeer	15	542	8	163	1,143	69 41	105 68
Leelanaw							
Lenawee	69	3,497	12	1,157	6,860	693 16	458 11
Livingston	4	136	1		102		1 74
Mackinac			1	206	206	368 69	368 03
Macomb	9	243	8	137	2,246	285 36	258 05
Manistee	11	637	4	850	2,755	541 15	305 93
Manitou			1		50		
Marquette			6	187	6,140	686 17	416 16
Mason			1	100	1,200	215 34	302 36
Mecosta	10	543	2	536	1,716	798 48	404 91
Menominee	2	120	1	56	56	53 35	
Midland	6	246	3	67	1,015	95 00	
Missaukee	3	67					
Monroe	5	176	2	10	2,335	262 70	15 71
Montcalm	9	238	3	144	558	278 81	34 34
Montmorency							
Muskegon	1	118	2	279	3,422	837 38	366 15
Newaygo	7	409					
Oakland	36	1,763	3	14	813		26 93
Oceana	5	172					
Ogemaw							
Ontonagon	1	95	4		1,720		
Osceola	1	40	1		12	12 00	
Oscoda							
Otsego	1	27					
Ottawa	20	886	12	315	2,033	480 81	324 98
Presque Isle	9	315	1	50	50	75 00	
Roscommon							
Saginaw	38	1,919	13	522	11,699	1,265 16	641 47
St. Clair	27	917	8	51	687		48 36
St. Joseph	51	2,377	5	141	2,334	419 39	88 54
Sanilac	10	466	6	2	342	2 00	23 85
Schoolcraft							
Shiawassee	11	214	2	28	458	38 00	72 45
Tuscola	10	352	7	191	684	66 34	66 36
Van Buren	13	390	6	233	516		201 55
Washtenaw	7	196	5	389	3,485	599 29	334 37
Wayne	90	16,497	27	3,762	63,714	15,207 57	5,980 61
Wexford	5	110	1	70	70	11 55	172 24

TABLE XI.

Branches of Instruction, as reported by School Inspectors for the Year ending September 1, 1884.

Counties.	Number of Districts in which Instruction is given in—												
	Orthography.	Reading.	Writing.	Arithmetic.	Geography.	English Grammar.	U. S. History.	Civil Gov't.	Algebra.	Geometry.	Physiology.	Nat. Philosophy.	Botany.
Totals	4,639	6,375	6,366	6,372	6,345	6,018	5,431	2,176	1,818	311	819	385	250
Alcona	8	10	10	10	9	7	6	1	1	.....	1	.....	.....
Allegan	132	183	183	183	182	176	156	63	27	8	16	8	5
Alpena	20	24	24	24	24	20	20	14	2	1	3	3	1
Antrim	43	56	56	56	56	52	50	22	9	2	6	2	2
Arenac	14	22	22	22	22	20	19	8	3	2	3	1	.....
Baraga	5	9	9	9	9	9	8	3	2	2	1	.....	.....
Barry	95	141	141	141	141	139	116	50	50	4	10	4	2
Bay	28	39	39	39	39	37	37	6	6	3	7	3	3
Benzie	32	37	37	37	37	34	25	6	5	1	2	2	1
Berrien	116	148	148	148	148	141	124	33	59	6	38	14	6
Branch	77	113	113	113	113	109	96	43	38	4	20	8	5
Calhoun	113	159	159	159	159	157	136	67	77	8	19	11	10
Cass	79	105	105	105	105	102	97	39	48	5	18	7	4
Charlevoix	50	57	57	57	57	55	47	19	5	.....	7	3	1
Cheboygan	37	40	40	40	40	36	34	11	7	3	6	3	1
Chippewa	23	26	26	26	26	22	17	8	1	1	1	2	1
Clare	23	29	29	29	28	24	24	9	3	.....	2	1	1
Clinton	95	114	114	114	114	113	104	53	33	3	21	11	5
Crawford	26	34	34	34	34	29	27	5	4	.....	3	1	1
Delta	19	22	22	22	22	19	11	3	1	1	1	1	1
Eaton	69	130	130	130	127	125	118	33	35	1	8	4	3
Emmet	39	51	51	51	51	42	40	11	6	2	4	2	1
Genesee	120	148	148	148	148	144	138	66	56	4	25	7	3
Gladwin	15	17	17	17	16	16	12	4	.....	.....	1	.....	.....
G'd Traverse	45	57	57	57	57	56	49	17	10	1	5	1	2
Gratiot	85	117	117	117	117	106	98	48	20	3	14	5	3
Hillsdale	94	167	167	167	167	165	143	48	67	7	14	6	6
Houghton	17	17	17	17	17	16	11	6	7	5	7	4	4
Huron	61	94	94	94	94	86	78	25	17	4	11	4	2
Ingham	86	128	128	128	128	123	112	55	41	8	16	7	3
Ionia	85	138	138	138	138	135	120	45	42	8	13	7	4
Iosco	13	22	22	22	22	18	17	6	6	4	6	4	4
Isabella	82	92	91	92	92	75	62	26	14	1	5	2	1
Isle Royal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	96	150	150	150	150	148	133	56	69	12	26	12	12
Kalamazoo	91	129	129	129	129	123	113	53	63	8	23	8	6
Kalkaska	39	48	49	49	49	45	41	16	11	1	6	2	1
Kent	128	195	195	195	195	190	160	70	77	8	29	12	6
Kewcenaw	9	11	11	11	9	9	7	5	5	1	3	1	1
Lake	35	45	45	45	45	38	38	19	6	1	8	1	1
Lapeer	80	118	118	118	118	117	105	33	36	5	14	17	6
Leelanaw	36	48	48	48	46	40	31	10	8	1	2	2	.....
Lenawee	108	190	190	190	190	186	169	65	58	9	22	12	6
Livingston	85	131	131	131	131	130	109	68	65	8	15	7	5
Mackinac	13	20	20	20	20	11	13	6	2	.....	2	2	.....
Macomb	69	100	100	100	100	96	88	46	35	8	14	10	6
Manistee	40	48	48	48	46	44	40	16	8	3	11	4	3
Manitou	4	4	4	4	4	2	2	2	.....	.....	1	.....	.....
Marquette	31	38	38	38	38	35	30	9	7	5	8	5	3
Mason	40	50	50	47	47	45	38	7	6	1	3	2	1
Mecosta	53	82	82	82	82	79	76	16	13	1	8	1	2
Menominee	26	28	28	28	28	20	15	5	5	1	7	1	1
Midland	37	49	49	48	48	44	41	8	6	2	3	4	3
Missaukee	20	32	32	32	32	25	22	6	2	.....	6	1	.....
Monroe	123	133	123	133	133	125	120	38	32	2	7	2	3

TABLE XI.—*Continued.*

Counties.	Number of Districts in which Instruction is given in—												
	Orthography.	Reading.	Writing.	Arithmetic.	Geography.	English Grammar.	U. S. History.	Civil Gov't.	Algebra.	Geometry.	Physiology.	Nat. Philosophy.	Botany.
Montcalm	67	120	120	120	120	118	108	40	37	5	10	4	3
Montmorency	9	11	11	11	11	8	7	2	------	------	------	------	------
Muskegon	69	86	86	86	86	80	68	20	16	7	11	8	4
Newaygo	80	96	96	96	96	93	89	34	21	8	12	9	7
Oakland	126	205	200	206	206	203	183	91	108	25	31	24	17
Oceana	67	84	84	84	84	83	77	27	14	2	6	2	------
Ogemaw	27	32	30	32	32	30	24	9	------	1	1	------	------
Ontonagon	8	8	8	8	8	8	7	6	5	3	5	3	2
Osceola	64	72	69	73	68	64	59	27	8	2	14	3	2
Oscoda	18	24	24	23	22	17	14	6	1	------	1	------	------
Otsego	25	33	33	33	32	27	24	14	2	1	3	------	------
Ottawa	101	114	114	114	114	113	104	37	36	7	15	8	3
Presque Isle	23	23	23	23	23	16	19	8	1	------	2	1	------
Roscommon	9	9	9	9	9	6	7	1	1	------	1	1	------
Saginaw	111	141	141	140	138	123	123	39	18	5	13	5	5
St. Clair	113	140	140	140	138	134	130	61	40	9	27	9	2
St. Joseph	86	121	121	121	121	115	102	42	47	9	20	11	7
Sanilac	94	126	126	126	126	125	121	57	39	5	23	7	5
Schoolcraft	6	13	13	13	13	10	5	2	2	------	2	------	------
Shiawassee	82	108	108	108	108	108	103	50	28	5	9	11	5
Tuscola	104	128	128	127	126	117	115	52	30	9	18	13	11
Van Buren	109	151	152	152	152	144	127	44	47	11	27	11	7
Washtenaw	82	138	138	138	138	128	111	32	51	8	18	8	6
Wayne	109	137	137	137	137	137	117	50	39	9	11	12	10
Wexford	44	60	60	60	58	51	44	18	11	1	7	1	2

TABLE XII.

Private and Select Schools, and School Apparatus, as reported by School Inspectors, for the Year ending September 1, 1884.

Counties.	Private and Select Schools.				Apparatus.		
	No. of Schools.	No. of Teachers Employed.		Estimated Number of Pupils.	No. of Districts Reporting Dictionaries.	No. of Districts Reporting Maps.	No. of Districts Reporting Globes.
		Men.	Women.				
Totals	296	253	383	27,130	2,939	1,811	1,404
Alcona	------	------	------	------	2	3	2
Allegan	4	2	3	250	83	42	41
Alpena	9	------	9	1,000	5	9	4
Antrim	1	------	1	40	14	12	12
Arenac	------	------	------	------	8	16	12
Baraga	------	------	------	------	3	4	2
Barry	1	1	------	30	80	19	16
Bay	10	8	14	1,254	22	26	20
Benzie	------	------	------	------	11	16	6
Berrien	5	1	4	115	99	41	37
Branch	1	1	------	22	45	20	19
Calhoun	3	2	5	225	110	36	22
Cass	3	------	3	20	76	31	25
Charlevoix	------	------	------	------	14	12	7
Cheboygan	1	1	4	500	8	10	6
Chippewa	1	------	4	100	3	8	5
Clare	------	------	------	------	9	6	7
Clinton	1	------	1	15	63	24	25
Crawford	------	------	------	------	10	11	9
Delta	4	------	4	64	9	7	5

TABLE XII.—*Continued.*

Counties.	Private and Select Schools.				Apparatus.		
	No. of Schools.	No. of Teachers Employed.		Estimated Number of Pupils.	No. of Districts Reporting Dictionaries.	No. of Districts Reporting Maps.	No. of Districts Reporting Globes.
		Men.	Women.				
Eaton	1		1	15	37	8	11
Emmet	1		1	25	9	5	2
Genesee	3	7	5	273	100	43	25
Gladwin					3	5	3
Grand Traverse					23	21	22
Gratiot	1		1	15	38	18	21
Hillsdale					108	31	36
Houghton	5	2	3	534	10	11	12
Huron	11	7	6	430	18	40	20
Ingham	3	1	4	300	63	16	18
Ionia	4	2	3	102	62	30	13
Iosco	1		1	30	6	17	6
Isabella	2		2	32	24	14	17
Isle Royal							
Jackson	4	3	10	460	101	71	47
Kalamazoo	5	6	16	475	88	30	27
Kalkaska	2	3	1	37	17	23	12
Kent	11	1	16	1,000	127	76	66
Keweenaw					5	4	5
Lake	1		1	10	15	9	9
Lapeer	1	1		12	46	25	24
Leelanaw					11	16	5
Lenawee	9	7	10	642	126	58	50
Livingston	1	1		24	44	16	12
Mackinac	3		3	40	4	7	4
Macomb	18	15	6	1,265	57	42	22
Manistee	3	3	4	800	23	24	19
Manitou						1	2
Marquette	3		3	74	14	28	16
Mason					25	23	16
Mecosta	3	1	3	165	32	32	24
Menominee	1		3	90	18	17	16
Midland	1		1	12	9	13	10
Missaukee					13	18	8
Monroe	24	18	9	1,078	44	30	20
Montcalm	2	1	1	30	50	45	3
Montmorency					2	3	3
Muskegon	3	3		300	40	30	30
Newaygo	3	2	4	84	33	32	31
Oakland	6	5	6	197	102	44	32
Oceana	4	1	2	84	41	26	26
Ogemaw					6	11	8
Ontonagon					5	5	4
Osceola					26	23	17
Oscoda	1		1	5	1	1	1
Otsego					9	9	7
Ottawa	6	6		252	82	48	44
Presque Isle	4	4		158	5	11	10
Roscommon					1	2	2
Saginaw	15	14	11	1,610	61	54	44
St. Clair	10	11	11	715	72	44	33
St. Joseph	1	6	8	78	45	17	18
Sanilac					27	28	25
Schoolcraft	1		1	10	3	4	1
Shiawassee	2	1	4	72	46	18	16
Tuscola	7	5	2	191	46	23	17
Van Buren	1		1	9	79	42	34
Washtenaw	14	7	9	797	66	38	30
Wayne	50	93	152	10,913	70	50	35
Wexford					27	28	22

TABLE XIII.

Examination and Certification of Teachers, as reported by Secretaries of Boards of School Examiners, for the Year ending September 1, 1884.

Counties.	No. of Public Examinations.	Whole No. of Applicants for Regular Certificates.	Whole No. of Applicants for Secretary's Special Certificates.	No. of Applicants Receiving Certificates.				No. Licensed without experience in teaching.	No. of Applicants having received some Normal instruction.	No. of Applicants having attended Institute during year.	No. of Teachers hold'g State Certificates.	No. of Teachers holding Normal School Certificates.	Whole No. of legally qualified Teachers in the County.	No. making teaching a permanent occupation.	No. of Teachers' Certificates suspended.	No. of Teachers' Certificates annulled.
				First.	Second.	Third.	Secretary's Special.									
Totals	446	12,589	2,500	155	540	8282	2302	2,342	2,704	4,390	55	242	10,026	2,789	3	5
Alcona	3	24	10	1	2	15	10	3	2	13	----	2	26	8	----	----
Allegan	6	409	32	2	32	306	30	118	105	145	1	3	390	30	----	----
Alpena	2	19	19	----	----	14	19		1	15	----	------	27	10	----	----
Antrim	4	102	61	5	4	63	45	18	19	67	2	4	78	12	----	----
Arenac	4	38	4	1	2	28	3	5	2	18	----	------	30	25	----	----
Baraga	1	8	5	----	----	5	5	2	------	------	----	3	11	3	----	----
Barry	11	285	31	2	15	198	30	86	100	------	----	3	245	100	----	----
Bay	4	80	25	1	6	40	22	7	5	40	----	------	48	------	1	----
Benzie	4	75	21	2	6	42	21	15	30	32	----	------	50	28	----	1
Berrien	7	205	29	9	5	159	29	59	73	112	4	4	206	50	----	----
Branch	7	250	22	6	49	187	22	25	50	100	----	20	262	150	----	----
Calhoun	10	411	52	7	23	274	48	60	------	180	2	------	306	150	1	1
Cass	7	378	60	1	4	154	55	40	116	180	----	6	214	------	----	----
Charlevoix	5	81	32	1	2	59	32	16	8	25	1	------	78	30	----	----
Cheboygan	5	70	41	3	6	40	35	3	19	26	----	------	54	10	----	----
Chippewa	3	28	26	----	2	16	17	6	1	18	1	------	33	23	----	----
Clare	6	42	30	2	5	29	26	12	------	12	----	------	37	12	----	----
Clinton	8	240	25	----	12	140	20	39	140	84	2	2	190	76	----	----
Crawford	4	26	36	3	----	24	33	11	4	------	----	------	24	------	----	----
Delta	2	28	5	1	1	24	5	9	3	28	----	------	26	31	----	----
Eaton	8	244	57	1	12	224	47	61	71	95	1	15	240	102	----	----
Emmet	4	74	47	2	3	34	57	11	7	43	----	1	73	2	----	----
Genesee	14	324	26	5	7	208	16	84	112	78	1	2	236	60	----	----
Gladwin	6	18	8	----	1	17	8	5	3	3	----	------	14	5	----	----
Gr. Traverse	5	126	16	----	10	76	14	9	67	60	3	4	93	------	----	----
Gratiot	5	220	83	2	4	140	76	------	------	------	2	2	150	------	----	----
Hillsdale	9	278	37	4	28	180	27	38	41	98	5	4	271	------	----	----
Houghton	4	80	11	1	6	47	11	2	31	35	2	10	74	60	----	----
Huron	5	110	72	2	5	74	72	------	------	------	----	2	90	90	----	----
Ingham	8	274	30	4	1	220	27	44	44	115	----	9	236	100	----	----
Ionia	8	361	116	3	1	207	106	77	90	------	2	7	220	------	----	----
Iosco	4	35	------	2	2	20	----	5	1	22	----	3	45	216	----	----
Isabella	5	166	50	1	6	77	36	14	20	70	1	2	96	20	----	----
Isle Royal	----	------	------	----	----	----	----	------	------	------	----	------	------	------	----	----
Jackson	9	391	53	1	6	252	48	71	91	131	----	23	294	------	----	----
Kalamazoo	8	397	114	1	5	137	62	60	12	105	1	3	269	67	----	----
Kalkaska	4	74	17	1	3	31	16	4	3	32	----	------	35	------	----	----
Kent	11	379	103	11	9	283	95	35	75	180	----	4	321	208	----	1
Keweenaw	3	20	8	5	----	10	7	4	6	8	----	1	20	15	----	----
Lake	4	84	9	----	1	75	4	21	23	36	----	------	76	------	----	----
Lapeer	8	358	50	----	3	224	45	56	95	65	----	5	212	120	----	1
Leelanaw	4	109	18	3	7	97	18	15	13	19	----	------	97	9	----	----
Lenawee	10	550	24	----	15	354	19	------	------	------	1	6	388	------	----	----
Livingston	10	321	37	3	8	180	27	61	231	285	2	6	193	43	1	1
Mackinac	4	27	12	----	2	10	11	4	------	5	----	2	19	7	----	----
Macomb	7	240	20	1	7	181	18	21	18	163	----	2	189	60	----	----
Manistee	4	80	11	----	2	58	10	9	19	41	----	------	60	45	----	----
Manitou	3	8	4	----	1	3	3	------	------	------	----	------	6	3	----	----
Marquette	4	73	42	1	9	41	39	6	11	35	7	10	69	------	----	----
Mason	4	62	20	----	2	35	21	18	17	36	----	------	54	29	----	----
Mecosta	6	136	59	3	9	117	51	29	69	70	----	2	138	------	----	----
Menominee	4	49	24	----	2	44	24	30	13	26	----	1	54	------	----	----
Midland	3	89	------	1	1	42	38	4	10	35	----	2	70	12	----	----
Missaukee	4	54	23	----	----	37	21	4	------	18	----	------	37	22	----	----

TABLE XIII.—*Continued.*

Counties.	No. of Public Examinations.	Whole No. of Applicants for Regular Certificates.	Whole No. of Applicants for Secretary's Special Certificates.	Number of Applicants receiving Certificates.				No. Licensed without experience in teaching.	No. of Applicants having received some Normal Instruction.	No. of Applicants having attended Institute during year.	No. of Teachers hold'g State Certificates.	No. of Teachers holding Normal School Certificates.	Whole No. of legally qualified Teachers in the County.	No. making teaching a permanent occupation.	No of Teachers' Certificates Suspended.	No. of Teachers' Certificates Annulled.
				First.	Second.	Third.	Secretary's Special.									
Monroe	8	299	20	4	31	187	20	68	69	111	----	3	234	100	----	----
Montcalm	7	263	115	2	4	135	151	33	24	52	1	1	196	------	----	----
Montmor'cy	5	16	5	----	1	15	5	2	------	4	----	------	17	12	----	----
Muskegon	6	123	13	4	26	93	13	41	11	96	2	------	120	41	----	----
Newaygo	6	158	72	1	3	131	42	65	43	69	----	------	149	------	----	----
Oakland	11	479	87	10	9	293	75	189	251	207	----	------	332	88	----	----
Oceana	6	190	45	----	8	123	38	35	75	95	----	2	169	40	----	----
Ogemaw	4	48	12	2	1	27	6	10	7	1	----	------	37	16	----	----
Ontonagon	3	18	8	1	1	9	8	4	1	4	----	4	28	9	----	----
*Osceola	----	------	------	----	----	----	----	------	------	------	----	------	------	------	----	----
Oscoda	4	20	22	----	1	14	17	13	2	------	----	------	27	------	----	----
*Otsego	----	------	------	----	----	----	----	------	------	------	----	------	------	------	----	----
Ottawa	7	183	48	1	23	158	48	60	28	55	1	2	197	78	----	----
Presque Isle	3	27	21	2	----	6	19	5	1	9	----	1	28	8	----	----
Roscommon	3	14	5	----	----	14	5	2	------	3	----	2	13	10	----	----
Saginaw	6	209	68	2	6	167	63	25	40	90	1	1	191	------	----	----
St. Clair	8	264	15	2	6	174	10	60	------	------	----	3	182	------	----	----
St. Joseph	10	278	27	3	13	244	22	68	67	142	1	10	271	100	----	----
Sanilac	6	231	25	----	20	153	25	38	18	50	2	3	178	------	----	----
*Schoolcraft	----	------	------	----	----	----	----	------	------	------	----	------	------	------	----	----
Shiawassee	7	244	48	2	5	114	35	27	56	80	1	4	147	69	----	----
Tuscola	8	271	36	2	10	160	33	44	5	155	1	2	175	160	----	----
*Van Buren	----	------	------	----	----	----	----	------	------	------	----	------	------	------	----	----
Washtenaw	9	282	------	1	10	200	32	62	37	87	2	22	225	------	----	----
Wayne	12	294	18	8	6	242	12	143	87	63	1	7	295	------	----	----
Wexford	5	128	24	3	2	70	22	18	11	22	1	------	51	15	----	----

* No reports from these counties.

TABLE XIV.

Miscellaneous Statistics, as reported by Secretaries of County Boards of School Examiners for the Year ending September 1, 1884.

Counties.	No. of Meetings of County Teachers' Associations.	No. of Township Teachers' Meetings.	No. of Visits to Schools by Secretaries.	No. of Visits to Schools by other Examiners.	No. days devoted to Meetings of County Board.	Amount of per diem Compensation received by the Examiners.	Amount received by Secretaries for services as Secretaries.	Amount received by Secretaries from Applicants for Special Certificates.	Amounts allowed by Supervisors for Stationery, Printing, Postage, etc.	Amount of Institute Fees Collected.
Totals	109	113	520	273	1,054	$11,903 10	$13,169 50	$1,372 50	$948 92	$7,535 10
Alcona	1	------	2	------	9	$100 00	$36 00	$3 00	$5 00	$20 50
Allegan	2	4	3	------	18	216 00	370 00	32 00	10 00	217 50
Alpena	3	------	3	------	7	68 00	40 00	16 00	9 11	25 50
Antrim	------	------	2	------	2	158 00	120 00	48 00	4 13	66 00
Arenac	6	------	6	------	27	81 00	44 00	4 00	8 00	18 00
Baraga	------	------	------	3	2	24 00	16 00	----------	----------	9 50
Barry	------	------	5	------	16	192 00	294 00	5 00	56 00	183 50
Bay	6	------	7	10	13	156 00	88 00	25 00	8 50	42 50
Benzie	------	------	13	6	12	132 00	72 00	21 00	12 00	53 50
Berrien	12	5	------	12	12	144 00	298 00	15 00	30 00	204 50
Branch	------	------	21	------	20	192 00	264 00	15 00	10 00	177 50
Calhoun	------	------	2	------	20	240 00	334 00	23 00	72 24	293 20
Cass	2	------	------	2	19	180 00	236 00	20 00	24 56	164 50
Charlevoix	1	------	------	------	14	168 00	122 00	14 00	----------	54 00
Cheboygan	------	------	3	------	13	136 00	84 00	5 00	2 00	38 50
Chippewa	------	------	16	8	13	156 00	16 00	26 00	7 50	31 50
Clare	------	------	------	------	17	30 50	64 00	20 00	----------	29 00
Clinton	2	18	25	10	30	360 00	260 00	20 00	125 00	161 50
Crawford	------	------	3	------	29	116 00	67 00	17 00	5 17	36 50
Delta	------	------	22	9	10	104 00	50 00	3 00	5 00	18 00

TABLE XIV.—*Continued.*

Counties.	No. of Meetings of County Teachers' Associations.	No. of Township Teachers' Meetings.	No. of Visits to Schools by Secretaries.	No. of Visits to Schools by other Examiners.	No. days devoted to Meetings of County Boards.	Amount of per Diem Compensation received by the Examiners.	Amount received by Secretaries for services as Secretaries.	Amount received by Secretaries from Applicants for Special Certificates.	Amounts allowed by Supervisors for Stationery, Printing, Postage, etc.	Amount of Institute Fees Collected.
Eaton	4	.....	6	1	16	$256 00	$288 00	$18 00	.....	$174 00
Emmet	1	.....	.....	.....	6	60 00	100 00	.....	$24 00	68 00
Genesee	2	.....	20	4	12	204 00	324 00	10 00	.....	.....
Gladwin	.....	.....	.....	.....	9	72 00	36 00	5 00	.....	11 50
G'd Traverse	.....	.....	.....	.....	13	156 00	118 00	14 00	.....	58 50
Gratiot	2	.....	2	.....	16	180 00	242 00	35 00	.....	152 00
Hillsdale	3	12	4	.....	3	254 00	350 00	27 00	31 50	226 00
Houghton	1	.....	10	.....	2	204 00	40 00	9 00	45 00	47 50
Huron	.....	.....	24	.....	14	56 00	208 00	2 00	12 00	94 00
Ingham	6	10	30	.....	16	192 00	296 00	15 00	.....	151 50
Ionia	3	10	.....	.....	3	.....	377 50	.....	.....	.....
Iosco	1	.....	.....	2	1	56 00	22 00	.....	.....	16 50
Isabella	.....	.....	4	4	12	150 00	184 00	24 00	.....	95 50
Isle Royal	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson	.....	.....	8	8	23	228 00	320 00	47 00	.....	213 50
Kalamazoo	.....	.....	17	1	16	240 00	280 00	15 00	.....	197 50
Kalkaska	2	.....	.....	.....	12	.....	99 00	16 00	3 25	50 00
Kent	3	.....	51	50	50	600 00	420 00	90 00	69 00	235 50
Keweenaw	1	.....	2	.....	11	124 00	24 00	6 00	3 20	26 00
Lake	2	.....	1	25	.....	100 00	100 00	.....	9 50	45 00
Lapeer	4	.....	8	9	20	9 00	272 00	25 00	20 00	182 00
Leelanaw	2	.....	.....	.....	12	144 00	100 00	17 00	14 00	52 00
Lenawee	.....	.....	1	.....	18	216 00	396 00	10 00	.....	288 00
Livingston	3	.....	28	.....	24	95 00	266 00	35 00	15 00	.....
Mackinac	.....	.....	.....	.....	12	144 00	42 00	11 00	.....	18 00
Macomb	2	.....	.....	.....	15	180 00	228 00	1 00	25 00	105 00
Manistee	2	10	6	2	14	168 00	92 00	.....	.....	52 00
Manitou	.....	.....	2	2	6	72 00	14 00	.....	1 00	5 00
Marquette	.....	.....	6	.....	31	124 00	78 00	39 00	27 50	92 50
Mason	.....	.....	8	12	10	144 00	96 00	10 50	18 00	56 00
Mecosta	2	8	15	12	4	157 00	170 00	27 00	14 70	97 50
Menominee	.....	.....	.....	.....	9	76 00	51 50	12 00	5 75	43 50
Midland	2	.....	.....	.....	14	173 00	103 00	16 50	4 50	57 50
Missaukee	.....	.....	5	.....	3	144 00	78 00	5 50	24 00	26 50
Monroe	.....	.....	8	.....	2	.....	276 00	10 00	15 00	200 00
Montcalm	2	.....	.....	11	2	188 75	272 00	107 00	.....	180 00
Montmorency	.....	.....	.....	.....	6	12 00	40 00	3 00	3 50	11 50
Muskegon	.....	.....	6	.....	3	240 00	162 00	11 00	50 00	87 50
Newaygo	2	.....	12	10	2	276 00	191 00	72 00	.....	84 50
Oakland	5	.....	12	.....	50	252 00	440 00	25 00	.....	294 50
Oceana	6	.....	16	10	14	66 00	176 00	24 00	.....	102 00
Ogemaw	.....	.....	15	2	12	144 00	70 00	2 00	10 00	21 00
Ontonagon	.....	.....	.....	.....	10	72 00	20 00	5 00	8 00	15 00
*Osceola	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oscoda	.....	.....	5	.....	6	64 00	40 00	1 00	.....	19 00
*Otsego	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Ottawa	4	.....	16	.....	53	212 00	234 00	10 00	5 00	136 50
Presque Isle	.....	.....	2	1	4	136 00	119 00	19 00	.....	21 00
Roscommon	.....	.....	6	6	15	60 00	18 00	5 00	.....	.....
Saginaw	.....	.....	4	.....	16	192 00	296 00	68 00	.....	208 50
St. Clair	2	.....	4	6	16	384 85	300 00	10 00	26 50	155 90
St. Joseph	.....	30	.....	.....	11	132 00	250 00	12 00	.....	135 50
Sanilac	.....	.....	.....	.....	6	168 00	252 00	10 00	.....	176 50
*Schoolcraft	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Shiawassee	2	.....	5	3	18	180 00	270 00	22 00	.....	142 00
Tuscola	.....	.....	5	15	.....	286 00	272 00	23 00	6 85	189 00
*Van Buren	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Washtenaw	.....	.....	9	12	19	204 00	332 00	27 00	30 00	236 00
Wayne	2	.....	2	5	46	552 00	318 00	12 00	32 96	155 50
Wexford	1	6	2	.....	13	152 00	130 00	20 00	.....	76 50

*No reports from these counties.

TABLE XV.

Graded School Statistics, Compiled from School Inspectors' Reports for the Year ending September 1, 1884.

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.
					Men.	Women.		
Totals 437	.....	266,459	$6,972,168 00	$1,306,564 27	$77 90	$38 11	$2,587,571 64	$1,166,249 33
Ada	Kent	149	$7,000 00	$729 00	$52 00	$29 00	$1,587 40	$2,000 00
Addison	Lenawee	119	3,000 00	856 00	71 00	24 00	1,023 06	.....
Adrian	Lenawee	2,469	104,000 00	13,829 90	114 00	35 87	21,043 47	.....
Alaska	Kent	101	2,000 00	505 00	45 00	20 00	811 38	400 00
Alba	Antrim	115	2,000 00	529 25	39 00	32 00	1,057 07	659 00
Albion	Calhoun	923	45,000 00	5,052 00	110 00	34 60	10,364 95	6,000 00
Algonac	St. Clair	358	8,000 00	1,350 00	70 00	26 66	1,751 96	.....
Allegan	Allegan	764	10,000 00	4,711 00	100 00	38 40	6,279 11	.....
Allen	Hillsdale	135	10,000 00	725 00	55 50	25 00	3,086 62	980 00
Alma	Gratiot	423	5,000 00	1,985 00	80 00	30 00	6,237 50	.....
Almont	Lapeer	321	15,000 00	1,700 00	80 00	30 00	15,733 85	10,500 00
Alpena	Alpena	2,528	40,000 00	8,740 00	97 00	39 75	15,773 03	.....
Ann Arbor	Washtenaw	2,570	160,000 00	21,584 90	135 40	39 73	45,414 90	14,000 00
Armada	Macomb	196	6,000 00	1,455 75	77 70	30 23	2,033 70	360 00
Athens	Calhoun	137	4,000 00	870 00	66 66	30 00	1,134 93	.....
Attica	Lapeer	258	1,600 00	823 00	50 00	25 00	986 44	.....
Augusta	Kalamazoo	213	8,000 00	1,381 50	46 70	30 00	10,173 96	6,265 00
Au Sable	Iosco	468	3,500 00	1,992 00	81 20	29 00	5,115 95	.....
Bad Axe	Huron	219	4,500 00	691 50	50 00	35 50	4,143 95	3,000 00
Baldwin City	Lake	123	4,000 00	760 00	60 00	35 00	1,048 03	2,500 00
Bancroft	Shiawassee	201	3,500 00	1,135 00	50 00	31 75	2,259 26	1,100 00
Bangor	Van Buren	233	2,600 00	1,952 00	88 80	32 00	2,286 97	.....
Bangor Tp., No. 3 fl.	Van Buren	93	1,000 00	620 00	40 00	28 80	773 32	.....
Bath	Clinton	146	3,000 00	721 50	49 00	27 20	1,372 48	400 00
Battle Creek	Calhoun	2,726	170,000 00	14,200 00	106 30	34 90	34,423 16	56,000 00
Bay City	Bay	7,578	160,000 00	23,212 75	200 00	37 87	52,099 71	5,700 00
Beacon	Marquette	582	13,500 00	3,940 00	100 00	58 80	6,989 72	8,480 00
Bear Lake	Manistee	143	4,000 00	1,055 00	50 00	39 64	2,048 52	3,950 00
Belding	Ionia	180	6,000 00	1,500 00	90 00	30 00	3,034 69	1,000 00
Belleville	Wayne	175	8,000 00	1,050 00	65 00	20 00	1,591 46	.....
Bellevue	Eaton	280	7,000 00	1,348 50	60 00	29 90	3,653 74	3,003 22
Benton Harbor	Berrien	705	20,000 00	1,972 50	100 00	35 34	5,234 63	.....
Berlin	Ottawa	130	1,000 00	620 00	31 10	26 60	993 46	.....
Berrien Springs	Berrien	263	9,000 00	1,880 00	88 00	30 00	5,387 09	2,000 00
Big Rapids	Mecosta	1,468	39,500 00	8,373 05	165 00	37 81	20,059 69	3,000 00
Birmingham	Oakland	296	15,000 00	2,060 00	48 00	31 60	2,778 47	.....
Blissfield, No. 1 fl.	Lenawee	226	6,000 00	1,320 00	60 00	24 00	1,961 28	2,400 00
Blissfield, No. 2 fl.	Lenawee	235	3,000 00	1,140 00	60 00	33 33	1,769 17	.....
Bloomingdale	Van Buren	168	4,000 00	879 00	54 16	32 05	1,272 50	3,000 00
Boyne City	Charlevoix	190	6,000 00	594 00	40 00	31 50	3,434 80	4,000 00
Breckenridge	Gratiot	119	1,200 00	565 00	40 00	28 90	1,072 01	1,000 00
Breedsville	Van Buren	115	1,000 00	600 00	47 00	28 00	703 75	.....
Bridgeport	Saginaw	132	3,000 00	675 00	45 00	30 00	11,804 98	.....
Brighton	Livingston	271	16,000 00	2,070 00	100 00	26 70	2,536 93	.....
Brockway Centre	St. Clair	218	2,000 00	785 45	60 00	18 54	1,111 01	700 00
Bronson	Branch	263	4,000 00	1,539 00	80 00	30 30	2,466 62	.....
Brooklyn	Jackson	210	12,000 00	1,960 80	100 00	32 02	2,463 78	.....
Brown City	Sanilac	224	900 00	638 25	44 32	19 50	973 65	726 05
Buchanan	Berrien	608	40,000 00	3,238 67	89 10	29 30	7,950 77	12,000 00
Buel	Sanilac	107	700 00	437 00	40 00	26 30	474 19	.....
Burlington	Calhoun	114	3,000 00	765 50	46 38	23 20	903 72	.....
Burr Oak	St. Joseph	270	15,000 00	1,530 00	70 00	23 33	2,614 83	400 00
Byron	Shiawassee	110	5,000 00	1,014 00	65 00	26 00	1,152 08	.....
Cadillac	Wexford	1,074	15,000 00	3,970 00	69 50	33 10	19,035 43	4,000 00
Caledonia	Kent	196	2,000 00	1,000 00	60 00	20 00	1,085 06	.....
Calumet	Houghton	2,441	600 00	13,439 97	93 85	49 26	19,155 73	.....
Cannonsburg	Kent	112	1,200 00	428 00	39 60	21 90	615 54	.....
Capac	St. Clair	265	10,000 00	1,025 00	55 00	23 70	2,910 06	5,000 00
Carleton	Monroe	217	3,000 00	675 00	37 50	.....	928 03	.....
Caro	Tuscola	615	4,000 00	2,763 00	90 00	34 09	7,379 86	.....

TABLE XV.—*Continued.*

Districts.	Counties.	No of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers.		Total Expenditures.	Total Indebtedness.
					Men.	Women.		
Carrollton	Saginaw	386	$2.000 00	$1,282 50	$68 25	$30 00	$1,723 87	------
Carson City	Montcalm	291	2,000 00	1,390 00	55 00	28 00	1,661 77	------
Caseville	Huron	250	5,000 00	1,250 00	65 00	30 00	1,941 78	$1,941 78
Casnovia	Muskegon	103	3,200 00	765 00	55 00	30 00	1,969 00	------
Cass City	Tuscola	234	1,000 00	1,046 00	66 00	30 00	1,368 05	8,364 97
Cassopolis	Cass	313	15,000 00	2,615 00	80 00	36 00	5,528 25	2,800 00
Cedar Springs	Kent	337	20,000 00	2,242 50	80 00	36 06	5,837 50	7,000 00
Central Mine	Keweenaw	301	8,500 00	1,810 00	80 00	40 00	2,415 35	------
Centreville	St. Joseph	281	20,000 00	2,242 50	70 00	31 00	5,850 98	3,500 00
Ceresco	Calhoun	101	1,100 00	645 00	50 00	38 30	739 25	------
Charlevoix	Charlevoix	337	5,500 00	1,632 71	77 00	27 00	1,985 35	------
Charlotte	Eaton	972	27,000 00	7,805 00	50 00	44 00	13,208 01	3,000 00
Chase	Lake	342	2,600 00	1,450 00	60 00	28 30	2,262 99	789 00
Cheboygan	Cheboygan	626	10,000 00	3,046 00	83 00	28 00	6,547 23	6,000 00
Chelsea	Washtenaw	419	8,000 00	2,479 00	80 00	24 33	3,730 79	------
Chesaning	Saginaw	358	12,000 00	1,852 00	70 00	28 80	3,827 61	6,000 00
Chickaming Tp., No. 3	Berrien	147	500 00	257 80	33 00	30 93	618 83	------
Clare	Clare	288	2,500 00	1,260 00	50 00	25 00	1,859 85	450 00
Clarkston	Oakland	168	4,500 00	1,220 00	70 00	26 00	2,293 10	500 00
Clayton	Lenawee	137	5,000 00	922 50	70 00	32 50	1,009 16	------
Clifton	Keweenaw	57	1,500 00	900 00	90 00	------	1,112 13	------
Climax	Kalamazoo	112	2,500 00	720 00	50 00	30 00	1,491 91	------
Clinton	Lenawee	262	6,000 00	1,988 00	80 00	29 70	2,615 26	------
Clio	Genesee	177	500 00	657 00	45 00	28 00	819 49	------
Coldwater	Branch	1,216	61,000 00	9,902 00	95 00	37 00	23,989 37	9,000 00
Coloma	Berrien	157	750 00	465 00	40 00	21 70	535 42	------
Colon	St. Joseph	168	3,000 00	1,160 00	60 00	28 00	2,181 55	1,000 00
Columbiaville	Lapeer	167	1,000 00	742 00	40 40	37 80	887 04	48 00
Concord	Jackson	193	3,000 00	1,539 00	75 00	32 00	8,790 71	3,105 00
Constantine	St. Joseph	373	35,000 00	3,530 00	79 50	32 33	5,732 57	400 00
Coopersville	Ottawa	276	6,500 00	1,393 25	74 75	30 00	1,907 89	932 80
Coral	Montcalm	212	3,500 00	797 75	50 00	29 77	915 12	42 00
Corunna	Shiawassee	443	28,500 00	3,290 00	100 00	32 70	8,830 69	10,000 00
Covert	Van Buren	161	1,800 00	861 60	60 00	35 73	1,057 10	------
Croswell	Sanilac	214	600 00	945 00	60 00	22 50	1,094 59	6,830 00
Crystal Falls	Marquette	210	8,000 00	1,599 00	63 83	45 00	6,793 91	8,000 00
Dansville	Ingham	172	4,000 00	1,440 00	60 00	28 00	2,194 61	------
Davisburg	Oakland	81	1,200 00	564 00	42 00	30 00	647 61	------
Dearborn	Wayne	310	2,500 00	900 00	60 00	30 00	1,314 93	------
Decatur	Van Buren	374	15,000 00	2,702 00	80 00	32 70	3,941 60	400 00
Deckerville	Sanilac	306	3,000 00	330 00	------	66 00	414 56	2,000
Deerfield	Lenawee	299	5,000 00	1,464 00	66 60	24 00	2,002 67	225 00
Detroit	Wayne	45,641	936,950 00	172,840 60	115 60	56 13	304,550 17	------
De Witt	Clinton	127	10,000 00	720 00	50 00	30 00	978 15	------
Dexter	Washtenaw	402	8,000 00	2,400 00	84 00	26 00	3,081 21	------
Dimondale	Eaton	132	3,500 00	556 00	40 00	29 50	618 62	------
Douglas	Allegan	183	3,000 00	1,340 00	88 00	30 00	1,831 47	------
Dowagiac	Cass	598	20,000 00	4,147 50	58 58	32 70	5,847 54	801 56
Drenthe	Ottawa	140	2,500 00	584 00	48 00	25 00	3,001 15	1,930 60
Dryden	Lapeer	168	4,000 00	847 50	60 00	22 30	1,283 51	------
Dundee	Monroe	403	20,000 00	1,800 00	70 00	27 50	17,651 71	17,000 00
East Lake	Manistee	312	3,600 00	1,140 00	40 00	45 00	2,090 28	2,000 00
East Saginaw	Saginaw	7,665	200,000 00	34,870 00	131 00	42 90	62,557 29	480 71
East Tawas	Iosco	435	3,600 00	2,380 00	80 00	34 50	4,057 60	4,000 00
Eaton Rapids	Eaton	594	32,000 00	3,105 00	80 00	29 40	9,466 53	18,000 00
Ecorse	Wayne	225	3,900 00	630 00	45 00	25 00	788 06	------
Edmore	Montcalm	339	2,000 00	1,760 00	80 00	32 00	2,852 03	------
Edwardsburg	Cass	159	2,000 00	1,215 00	65 00	35 00	1,725 13	------
Elk Rapids	Antrim	411	15,000 00	3,444 50	90 00	41 70	6,776 95	500 00
Elm Hall	Gratiot	180	2,200 00	764 00	52 20	33 60	2,310 09	1,500 00
Elsie	Clinton	197	1,000 00	924 74	50 00	28 00	1,098 32	29 26
Erie	Monroe	192	3,500 00	663 24	------	36 84	3,194 39	2,800 00
Escanaba	Delta	1,078	33,200 00	4,797 50	110 00	39 97	11,993 86	29,968 12
Essexville	Bay	373	7,000 00	1,506 25	72 91	42 50	3,296 62	248 80
Evart	Osceola	435	6,000 00	2,190 00	75 00	36 00	2,703 30	------

TABLE XV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Fairfield	Lenawee	96	$2,500 00	$504 00	$30 00	$27 60	$544 40	$1,000 00
Farmers	Sanilac	123	650 00	346 00	50 00	24 00	421 10	
Farmington	Oakland	138	800 00	905 00	52 50	19 00	1,090 03	
Farwell	Clare	188	4,000 00	1,396 50	71 25	30 70	2,361 70	642 00
Fennville	Allegan	157	1,600 00	562 50	45 00	27 32	764 97	
Fentonville	Genesee	809	40,000 00	4,800 00	75 00	36 60	6,411 66	
Ferrysburg	Ottawa	282	2,000 00	990 00	60 00	25 50	1,337 27	
Fillmore Center	Allegan	180	1,000 00	575 00	45 00	28 00	770 78	42 00
Fillmore Tp., No. 1	Allegan	156	2,000 00	463 60	49 40	29 55	589 81	
Flat Rock	Wayne	235	12,000 00	1,080 00	60 00	24 00	1,590 02	
Flint	Genesee	2,398	130,000 00	16,438 80	84 00	38 22	36,904 70	73,000 00
Flushing	Genesee	255	10,000 00	1,901 12	64 66	31 18	2,371 65	
Forester	Sanilac	153	1,200 00	365 75	33 45	27 50	763 05	
Forestville	Sanilac	166	2,000 00	410 00	40 00	12 50	539 81	
Fort Gratiot	St. Clair	621	10,000 00	2,605 00	75 00	35 00	6,042 88	1,680 00
Fowler	Clinton	121	1,800 00	720 00	50 00	30 00	871 89	
Fowlerville	Livingston	314	2,500 00	2,140 00	70 00	28 80	2,865 66	
Frankfort	Benzie	395	4,000 00	2,154 75	75 00	32 88	4,981 88	425 00
Franklin Tp., No. 1	Houghton	333	800 00	1,450 00	.....	48 33	1,815 76	
Franklin Tp., No. 2	Houghton	326	3,500 00	1,750 00	85 00	45 00	2,417 20	
Franklin Tp., No. 5	Houghton	409	2,000 00	1,650 00	80 00	42 50	2,172 56	
Freeland	Saginaw	122	2,000 00	700 00	45 00	25 00	793 11	
Freeport	Barry	101	1,500 00	560 00	38 80	23 30	605 28	
Fremont	Newaygo	422	8,000 00	1,950 00	70 00	31 25	4,244 75	2,000 00
Fruitport	Muskegon	108	3,000 00	837 88	64 85	24 92	1,404 13	
Gaines Station	Genesee	155	500 00	737 00	48 70	24 00	815 69	
Galesburg	Kalamazoo	209	10,000 00	1,660 00	70 00	32 00	2,437 94	
Galien	Berrien	175	4,000 00	933 75	55 00	25 38	1,141 83	
Gaylord	Otsego	226	1,600 00	1,167 50	60 00	34 85	1,875 81	469 69
Gerard	Branch	87	1,500 00	570 00	33 00	30 00	615 27	
Gobleville	Van Buren	155	3,000 00	623 89	.....	62 38	813 15	
Goodrich	Genesee	82	2,000 00	204 00	77 50	23 43	230 66	
Graafschap	Allegan	206	1,600 00	728 50	45 70	30 17	1,764 50	500 00
Grand Blanc	Genesee	110	2,500 00	540 00	30 00	30 30	603 72	31 20
Grand Haven	Ottawa	2,110	55,000 00	10,234 00	123 00	38 73	21,586 21	3,500 00
Grand Ledge	Eaton	420	3,500 00	1,972 00	59 60	29 90	2,394 73	
Grand Rapids	Kent	12,121	546,000 00	71,980 08	129 78	45 63	182,821 83	123,000 00
G'd Rapids Tp., No. 1	Kent	435	6,000 00	1,683 75	80 00	26 79	2,583 12	4,500 00
G'd Rapids Tp., No. 6	Kent	239	2,000 00	650 00	.....	32 50	910 50	
G'd Rapids Tp., No. 15	Kent	234	3,400 00	164 00	56 71	25 78	193 48	2,950 00
Grandville	Kent	328	10,000 00	310 00	76 60	30 89	617 60	
Grass Lake	Jackson	236	9,000 00	1,964 57	115 90	27 10	3,235 05	150 00
Grattan	Kent	100	2,000 00	645 00	54 16	29 09	759 40	
Grayling	Crawford	144	5,000 00	1,365 00	72 20	39 70	6,616 24	3,000 00
Greenland Tp., No. 1	Ontonagon	103	1,000 00	1,046 25	74 62	30 00	1,232 17	
Greenland Tp., No. 2	Ontonagon	104	.....	1,100 00	75 00	35 00	1,385 08	
Greenland Tp., No. 2 fl.	Ontonagon	82	800 00	1,000 00	75 00	25 00	1,159 87	
Greenville	Montcalm	838	45,000 00	6,834 00	87 50	18 15	14,066 75	
Grindstone City	Huron	223	2,500 00	730 00	50 00	23 00	1,218 36	500 00
Grosse Isle	Wayne	212	3,000 00	1,000 00	.....	33 30	1,231 26	
Hadley	Lapeer	130	3,000 00	914 00	58 60	25 80	977 54	
Hamtramck Tp., No. 5	Wayne	843	5,500 00	1,750 00	70 00	35 00	4,643 66	
Hancock	Houghton	1,221	26,000 00	4,852 75	113 00	49 89	12,213 10	15,000 00
Hanover	Jackson	155	9,000 00	1,800 00	75 00	35 00	2,370 91	
Harbor Springs	Emmet	337	4,500 00	1,395 00	65 00	30 00	3,354 81	1,725 00
Harrison	Clare	193	3,000 00	978 00	50 00	29 00	1,766 04	
Harrisville	Alcona	313	4,000 00	1,700 00	80 00	36 00	2,033 28	115 94
Hart	Oceana	238	3,000 00	1,650 00	70 00	31 60	2,818 01	
Hartford	Van Buren	309	6,000 00	1,852 00	77 00	32 00	3,033 20	
Hartland	Livingston	97	3,000 00	710 00	53 50	27 90	979 29	15 49
Hastings	Barry	830	40,000 00	5,000 00	110 00	32 50	11,452 29	23,000 00
Hersey	Osceola	152	2,000 00	1,200 00	65 00	27 50	1,454 97	
Hesperia	Newaygo	253	4,000 00	985 75	44 64	30 00	1,899 43	1,250 00
Highland Station	Oakland	145	1,500 00	705 00	46 50	24 00	1,099 80	71 03
Hillsdale	Hillsdale	1,042	50,000 00	5,449 75	120 00	37 28	9,125 86	

TABLE XV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Holland	Ottawa	1,137	$20,000 00	$4,411 25	$90 00	$29 26	$7,332 47	$16,000 00
Holland Tp., No. 1 fl	Ottawa	151	1,200 00	341 25	.....	34 12	572 01	.....
Holland Tp., No. 9.	Ottawa	125	1,500 00	358 75	35 87	.....	619 60	420 00
Holland Tp., No. 11 fl.	Ottawa	128	700 00	390 90	39 09	.....	521 85	.....
Holly	Oakland	370	25,000 00	2,920 00	100 00	32 00	3,895 14	2,225 00
Holt	Ingham	141	1,700 00	560 00	81 00	24 00	663 17	.....
Homer	Calhoun	317	7,500 00	2,000 00	80 00	30 00	2,453 49	.....
Horton	Jackson	123	3,000 00	720 00	50 00	30 00	931 36	.....
Houghton	Houghton	1,103	40,000 00	8,026 00	120 00	48 00	12,587 80	.....
Howard City	Montcalm	292	3,500 00	1,579 00	80 00	31 16	1,914 42	95 00
Howell	Livingston	646	25,000 00	4,088 00	83 40	34 20	8,046 89	15,500 00
Hubbardston	Ionia	194	4,500 00	1,170 00	60 00	30 00	3,167 35	3,500 00
Hudson Tp., No. 5.	Lenawee	224	3,500 00	1,496 00	72 20	31 30	1,765 72	.....
Hudson	Lenawee	379	10,000 00	3,334 40	72 63	34 28	5,675 68	.....
Humboldt	Marquette	212	4,000 00	1,150 00	75 00	40 00	1,980 42	.....
Ida	Monroe	128	1,500 00	525 00	45 00	30 00	686 85	.....
Imlay City	Lapeer	411	5,500 00	1,492 50	60 00	24 79	1,816 39	1,000 00
Inverness Tp., No. 3 fl.	Cheboygan	215	2,100 00	1,050 00	70 00	35 00	1,366 38	.....
Ionia	Ionia	1,257	33,000 00	8,965 00	110 00	39 00	14,230 40	2,500 00
Iron Mountain	Menominee	685	16,500 00	2,450 00	85 00	40 00	12,455 49	14,000 00
Ironton	Charlevoix	181	4,000 00	622 50	40 00	29 16	1,751 67	1,800 00
Ishpeming	Marquette	2,039	38,000 00	9,017 50	200 00	45 20	18,339 99	10,000 00
Ishpeming Tp., No. 1	Marquette	147	1,200 00	887 50	.....	49 30	1,576 99	.....
Ithaca	Gratiot	441	25,000 00	2,175 00	97 50	30 00	14,173 02	21,000 00
Jackson, No. 1	Jackson	2,714	110,000 00	20,495 55	142 10	45 19	31,507 34	.....
Jackson, No. 17	Jackson	2,227	55,000 00	8,416 20	140 00	35 08	13,268 26	4,500 00
Jonesville	Hillsdale	614	40,000 00	2,758 00	102 30	32 50	3,540 24	.....
Kalamazoo	Kalamazoo	3,800	100,000 00	21,181 00	145 00	37 18	41,551 08	15,000 00
Kalkaska	Kalkaska	261	9,000 00	1,800 00	65 00	38 30	5,509 19	5,000 00
Keelersville	Van Buren	86	2,000 00	362 50	37 70	24 72	695 80	2,000 00
Laingsburg	Shiawassee	204	5,000 00	1,200 00	60 00	30 00	5,527 41	2,666 64
Lake Linden	Houghton	956	4,000 00	7,890 00	97 50	49 50	11,132 31	.....
Lakeside Tp., No. 3	Muskegon	395	2,500 00	2,036 50	65 00	34 66	3,576 64	.....
Laketown Tp., No. 1	Allegan	144	600 00	475 00	50 00	25 00	526 68	.....
Lakeview	Montcalm	252	3,000 00	1,500 00	55 00	31 60	1,829 35	.....
Lambertville	Monroe	93	1,500 00	381 25	50 00	27 60	443 81	.....
Lamont	Ottawa	107	3,000 00	475 60	50 00	27 56	570 03	.....
L'Anse	Baraga	340	5,500 00	2,360 00	80 00	40 00	5,445 11	5,500 00
Lansing	Ingham	2,613	100,000 00	14,262 52	113 00	36 20	33,752 17	48,000 00
Lapeer	Lapeer	793	35,000 00	5,700 00	68 30	30 40	8,389 17	.....
Lawrence	Van Buren	180	5,000 00	1,653 00	66 00	30 97	2,071 40	.....
Lawton	Van Buren	271	15,000 00	1,356 00	66 00	28 00	1,905 35	.....
Leland	Leelanaw	123	500 00	690 00	56 25	30 00	1,032 95	.....
Leslie	Ingham	423	15,000 00	2,450 00	90 00	31 00	3,201 47	.....
Lexington	Sanilac	310	3,000 00	1,790 00	70 00	27 20	2,236 83	.....
Linden	Genesee	189	1,000 00	1,025 00	52 50	45 00	1,272 25	2,000 00
Lisbon	Ottawa	119	2,000 00	892 50	60 00	29 25	1,064 48	.....
Litchfield	Hillsdale	226	2,000 00	1,387 50	66 60	29 16	1,746 82	.....
Lowell	Kent	784	12,000 00	3,450 00	62 00	31 55	4,725 42	.....
Ludington	Mason	1,613	25,000 00	8,509 30	85 70	42 46	15,483 06	7,043 00
Luther	Lake	254	8,000 00	1,370 00	50 00	30 00	4,680 77	2,200 00
Lyons	Ionia	223	2,000 00	1,512 00	66 00	34 00	1,801 83	.....
McBrides	Montcalm	307	2,000 00	1,258 00	77 70	31 00	2,527 82	512 92
Mackinac	Mackinac	280	2,000 00	1,180 00	70 00	42 50	2,173 56	.....
Macon	Lenawee	109	2,000 00	576 00	40 00	24 00	690 97	.....
Mancelona	Antrim	348	6,000 00	2,072 50	52 50	20 40	3,395 35	3,136 25
Manchester	Washtenaw	451	25,000 00	3,190 00	77 50	32 80	4,111 96	.....
Manistee	Manistee	2,971	70,000 00	12,200 12	97 50	46 92	30,575 54	4,000 00
Manistique	Schoolcraft	335	3,791 00	1,750 00	75 00	50 00	2,403 60	.....
Manton	Wexford	162	1,000 00	700 00	50 00	27 70	855 25	.....
Maple Rapids	Clinton	211	4,000 00	1,510 00	65 00	28 00	1,774 24	.....
Marcellus	Cass	194	7,500 00	990 00	50 00	30 00	2,097 36	3,900 00
Marine City	St. Clair	787	10,000 00	1,800 00	72 00	25 60	2,623 75	.....
Marlette	Sanilac	278	5,500 00	1,150 00	60 00	27 50	1,543 01	.....
Marquette	Marquette	1,955	50,000 00	8,401 25	110 00	39 40	21,407 55	50,400 00

TABLE XV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Marshall	Calhoun	1,163	$100,000 00	$8,197 48	140 00	$33 98	$19,425 93	$15,450 92
Marysville	St. Clair	152	2,500 00	618 00	.....	39 90	724 65	.....
Mason	Ingham	589	18,000 00	3,501 75	100 00	30 59	4,347 65	.....
Mattawan	Van Buren	95	3,000 00	362 50	.....	20 19	563 65	.....
May	Tuscola	152	800 00	725 00	50 00	25 00	1,013 14	.....
Mears	Oceana	200	1,200 00	600 00	45 00	30 00	662 70	.....
Mecosta	Mecosta	230	1,500 00	1,215 00	65 00	35 00	2,155 00	.....
Memphis	Macomb	276	6,000 00	1,280 00	70 00	29 00	1,623 40	.....
Mendon	St. Joseph	256	12,000 00	2,075 00	70 00	34 37	3,953 15	2,000 00
Menominee	Menominee	1,439	35,000 00	5,570 00	98 00	39 40	13,257 46	7,000 00
Metamora	Lapeer	130	3,500 00	866 00	55 50	24 40	975 44	.....
Michigamme	Marquette	426	6,500 00	1,827 00	81 20	33 80	2,739 92	.....
Middleville	Barry	254	14,000 00	1,865 25	65 00	31 86	5,302 30	8,000 00
Midland, No. 3	Midland	628	22,000 00	3,690 00	81 76	37 09	8,822 30	4,000 00
Midland, No. 6	Midland	171	2,000 00	873 25	75 00	34 15	1,223 27	.....
Milan	Washtenaw	249	6,500 00	995 00	60 00	50 50	3,602 76	3,000 00
Milford	Oakland	389	16,000 00	2,267 50	43 16	25 30	16,085 67	11,059 73
Milburg	Berrien	101	3,000 00	500 00	50 00	25 00	601 63	.....
Millington	Tuscola	213	3,000 00	660 00	45 00	28 30	3,359 92	6,000 00
Monroe	Monroe	1,839	15,800 00	4,163 75	120 00	32 26	8,017 28	494 26
Montague	Muskegon	575	15,000 00	2,811 25	110 00	37 20	6,593 38	3,000 00
Morenci	Lenawee	389	12,000 00	1,784 00	72 20	25 20	3,844 43	2,400 00
Morley	Mecosta	170	1,822 00	815 00	55 50	35 00	1,258 57	.....
Moscow	Hillsdale	96	1,000 00	554 88	42 26	19 38	771 98	7 76
Moscow Tp. No. 1, Fl.	Hillsdale	96	1,000 00	352 00	35 00	15 10	461 20	.....
Mount Clemens	Macomb	1,285	23,000 00	3,833 00	120 00	29 25	5,269 81	.....
Mount Morris	Genesee	186	2,500 00	720 00	50 00	30 00	913 11	.....
Mount Pleasant	Isabella	583	20,000 00	2,840 00	100 00	36 80	6,125 74	12,000 00
Muir	Ionia	211	6,900 00	1,226 00	72 00	32 00	7,121 17	4,500 00
Muskegon	Muskegon	5,379	127,500 00	26,199 76	104 70	43 97	74,548 91	19,500 00
Napoleon	Jackson	150	5,000 00	1,280 00	66 00	30 00	1,579 98	.....
Nashville	Barry	292	2,000 00	1,470 00	56 60	30 95	1,776 87	.....
National Mine	Marquette	307	4,500 00	1,950 00	100 00	47 50	5,548 66	1,000 00
Negaunee	Marquette	1,532	20,000 00	5,700 00	130 00	44 40	10,949 72	.....
Newaygo	Newaygo	440	4,000 00	1,920 00	.....	48 00	2,828 51	.....
New Baltimore	Macomb	378	24,000 00	1,140 00	60 00	27 00	1,816 57	.....
New Buffalo	Berrien	223	4,000 00	1,080 00	70 00	32 50	1,488 52	.....
New Groningen	Ottawa	135	1,800 00	500 00	40 00	20 00	845 07	600 00
New Haven	Macomb	242	1,500 00	963 00	60 00	23 50	1,222 02	.....
New Holland	Ottawa	197	1,000 00	600 00	45 00	15 00	922 62	.....
New Hudson	Oakland	73	6,000 00	540 00	40 00	20 00	682 48	.....
New Troy	Berrien	126	5,000 00	817 75	65 00	33 08	1,226 84	.....
Niles City	Berrien	1,303	50,000 00	8,057 30	100 00	35 38	14,603 79	.....
North Adams	Hillsdale	205	10,000 00	1,400 00	72 20	30 00	2,019 18	.....
North Branch	Lapeer	236	1,300 00	1,080 00	60 00	30 00	1,330 40	.....
North Muskegon	Muskegon	502	4,000 00	2,135 50	103 50	99 90	5,745 50	1,875 00
Northport	Leelanaw	129	2,000 00	700 00	51 60	26 10	1,033 22	.....
Northville	Wayne	274	12,000 00	2,045 60	90 00	28 64	2,689 21	.....
Norway	Menominee	516	6,000 00	2,855 00	80 00	41 50	4,178 25	.....
Nunica	Ottawa	156	3,500 00	650 00	45 00	25 00	764 18	.....
Okemos	Ingham	134	2,500 00	620 00	38 75	.....	757 75	.....
Olivet	Eaton	189	500 00	682 91	.....	34 80	828 11	4,700 00
Onondaga	Ingham	138	800 00	720 00	60 00	20 00	792 68	.....
Ontonagon	Ontonagon	697	10,000 00	2,580 00	100 00	40 50	3,527 05	.....
Opechee	Houghton	392	.....	2,099 00	100 00	39 20	3,157 51	.....
Orion	Oakland	215	4,000 00	710 00	45 00	26 00	870 25	.....
Ortonville	Oakland	123	3,000 00	770 00	55 00	22 00	991 64	.....
Oscoda	Iosco	890	7,500 00	2,607 00	58 90	35 50	6,864 66	2,100 00
Osseo	Hillsdale	112	3,000 00	578 29	38 88	21 86	758 74	100 00
Otisville	Genesee	210	4,000 00	890 00	45 00	22 00	316 89	.....
Otsego	Allegan	407	10,000 00	2,558 00	88 00	34 40	5,040 11	61 61
Otter Lake	Lapeer	172	1,200 00	702 92	.....	28 30	1,055 96	192 29
Ovid	Clinton	440	20,000 00	3,179 00	120 00	28 50	5,416 29	2,000 00
Owosso	Shiawassee	1,159	50,000 00	6,630 00	61 50	37 90	10,696 20	12,000 00
Oxford	Oakland	326	1,000 00	1,880 00	70 00	29 50	2,478 19	.....

TABLE XV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
Palmyra	Lenawee	159	$4,000 00	$610 40	$44 98	$28 37	$748 49	.....
Palo	Ionia	108	5,000 00	986 20	50 00	55 65	1,234 56	.....
Paris Tp., No. 1	Kent	172	1,300 00	585 00	40 00	25 00	676 90	.....
Parma	Jackson	242	14,000 00	1,836 00	61 00	19 25	4,560 85	$3,000 00
Paw Paw	Van Buren	359	45,000 00	3,630 00	120 00	34 50	8,345 10	10,000 00
Pentwater	Oceana	448	8,000 00	2,152 50	80 00	33 81	3,872 53	.....
Perry	Shiawassee	159	4,500 00	1,225 00	62 50	30 00	1,969 13	1,500 00
Petersburg	Monroe	179	10,000 00	1,007 00	61 18	25 87	1,559 22	.....
Petoskey	Emmet	778	5,000 00	3,644 75	110 00	31 03	6,924 15	1,000 00
Pewamo	Ionia	123	1,000 00	705 00	48 50	30 00	995 39	108 97
Phœnix	Keweenaw	219	3,500 00	1,550 00	75 00	48 60	895 11	.....
Pierson	Montcalm	172	2,000 00	1,220 00	45 00	30 00	1,444 15	.....
Pinckney	Livingston	210	400 00	1,150 00	60 00	27 50	1,620 24	.....
Pine Run	Genesee	105	1,000 00	496 80	41 11	19 86	546 25	.....
Pipestone	Berrien	74	1,000 00	340 00	40 00	20 00	391 67	.....
Pittsford	Hillsdale	122	2,500 00	704 53	52 98	25 29	804 13	.....
Plainwell	Allegan	457	14,500 00	2,819 00	100 00	30 40	4,730 21	131 00
Plymouth	Wayne	437	15,000 00	2,625 00	90 00	34 50	9,833 17	11,000 00
Pokagon	Cass	88	600 00	374 00	.....	28 70	545 98	.....
Pontiac	Oakland	1,181	80,000 00	9,864 50	103 00	37 58	18,890 46	1,605 00
Port Austin	Huron	393	4,000 00	1,400 00	80 00	30 00	1,813 12	.....
Port Crescent	Huron	159	2,000 00	740 00	50 00	24 00	918 40	.....
Port Hope	Huron	219	2,500 00	923 50	59 80	32 50	1,061 55	.....
Port Huron	St. Clair	3,724	78,400 00	12,350 00	110 00	35 00	24,715 91	.....
Portland	Ionia	506	16,000 00	3,265 00	71 00	33 00	7,823 85	10,000 00
Port Sanilac	Sanilac	257	800 00	900 00	70 00	30 00	999 27	.....
Potterville	Eaton	214	5,000 00	1,045 50	.....	38 74	280 80	100 00
Quincy	Branch	333	1,200 00	2,444 34	71 09	30 60	4,737 54	1,500 00
Quincy Mine	Houghton	566	10,000 00	2,220 00	90 00	45 00	3,049 80	.....
Quinnesec	Menominee	203	3,800 00	1,650 00	.....	41 20	4,322 98	1,500 00
Reading	Hillsdale	246	8,000 00	1,536 25	65 00	29 54	2,097 77	.....
Reed City	Osceola	611	12,000 00	2,535 00	80 00	29 74	3,979 95	1,500 00
Reese	Tuscola	201	2,200 00	765 00	50 00	35 00	1,066 30	2,000 00
Republic	Marquette	641	12,000 00	3,408 00	127 00	42 76	12,812 18	4,000 00
Richland	Kalamazoo	117	5,000 00	1,200 00	60 00	33 00	4,294 05	1,600 00
Richmond	Macomb	256	8,000 00	1,116 00	60 00	21 30	1,508 69	3,200 00
Riga	Lenawee	222	6,000 00	460 00	47 50	33 75	3,781 72	3,500 00
Riley Centre	St. Clair	112	1,000 00	525 00	46 60	21 25	632 28	.....
Rochester	Oakland	309	3,000 00	1,650 00	80 00	29 60	2,344 09	.....
Rockford	Kent	279	20,000 00	1,950 00	67 50	30 00	4,579 18	10,000 00
Rockland	Ontonagon	336	3,000 00	2,785 00	76 70	41 60	3,390 49	.....
Rogers City	Presque Isle	152	3,000 00	570 00	43 80	.....	895 04	2,000 00
Romeo	Macomb	515	10,000 00	3,835 00	73 30	32 70	13,416 43	20,000 00
Royal Oak	Oakland	154	3,500 00	438 00	.....	29 30	565 47	.....
Saginaw	Saginaw	4,435	100,000 00	17,237 30	112 50	35 98	27,237 70	.....
St. Charles	Saginaw	349	1,200 00	1,138 60	56 51	35 00	3,335 50	6,000 00
St. Clair	St. Clair	725	22,000 00	4,585 00	100 00	35 85	7,343 30	7,329 85
St. Ignace	Mackinac	649	13,500 00	3,097 00	52 10	40 00	12,762 51	9,500 00
St. James	Manitou	121	500 00	445 00	40 00	25 00	495 00	85 00
St. Johns	Clinton	777	15,000 00	5,500 00	100 00	34 60	10,847 49	1,000 00
St. Joseph	Berrien	1,120	41,500 00	4,657 00	61 00	34 73	13,591 69	21,000 00
St. Louis	Gratiot	837	15,000 00	3,833 50	83 10	35 30	6,957 33	9,000 00
Saline	Washtenaw	278	25,000 00	2,540 00	90 00	32 80	3,681 94	.....
Salt River	Isabella	132	2,000 00	568 00	45 00	26 00	720 35	.....
Sand Beach	Huron	312	3,000 00	1,595 00	52 50	33 30	2,459 31	600 00
Sand Lake	Kent	214	3,000 00	1,238 50	80 00	29 90	2,312 79	1,450 00
Sanilac Tp., No. 2	Sanilac	137	1,500 00	448 00	42 00	28 00	557 67	.....
Saranac	Ionia	259	12,500 00	1,616 00	114 50	65 00	2,132 47	.....
Saugatuck	Allegan	365	10,000 00	1,840 00	70 00	28 20	2,407 25	.....
Sault Ste. Marie	Chippewa	800	20,300 00	1,992 00	90 00	34 40	3,152 59	3,000 00
Schoolcraft	Kalamazoo	296	24,000 00	2,618 00	100 00	36 34	4,962 72	.....
Sebewaing	Huron	360	4,000 00	772 00	55 00	24 60	924 56	.....
Shelby	Oceana	289	3,500 00	1,200 00	60 00	31 42	2,359 58	.....
Sheridan	Montcalm	268	4,000 00	2,026 50	131 20	35 70	2,742 48	.....
Sherwood	Branch	164	3,000 00	702 00	50 00	28 00	967 98	.....

TABLE XV.—*Continued.*

Districts.	Counties.	No. of Children in School Census.	Estimated Valuation of School Property.	Am't paid for Superintendence and Instruction.	Av. Monthly Wages of Teachers. Men.	Av. Monthly Wages of Teachers. Women.	Total Expenditures.	Total Indebtedness.
South Haven	VanBuren	442	$5,000 00	$2,584 60	100 00	$28 81	$3,643 10	$350 00
South Lyon	Oakland	193	3,600 00	920 00	$60 00	20 00	1,711 65	2,510 00
Sparta Centre	Kent	214	5,500 00	1,250 00	------	41 60	3,148 41	750 00
Spring Lake	Ottawa	802	8,500 00	3,586 00	------	39 16	4,684 11	----------
Springport	Jackson	138	6,000 00	1,175 00	60 00	28 75	2,108 64	----------
Springwells Tp., No.1	Wayne	1,491	13,405 00	2,350 00	70 00	33 00	3,257 74	----------
Springwells Tp., No.2	Wayne	320	6,000 00	750 00	50 00	25 00	1,501 95	----------
Springwells Tp., No.4	Wayne	2,200	5,000 00	2,570 00	55 00	30 00	3,738 98	----------
Stanton	Montcalm	641	7,000 00	3,700 00	90 00	35 00	4,839 93	----------
Sturgis	St. Joseph	548	30,000 00	4,069 50	111 00	36 11	7,244 44	2,000 00
Sumner	Gratiot	121	4,000 00	520 00	40 00	30 00	1,719 77	2,640 00
Tawas City	Iosco	483	5,300 00	1,700 00	90 00	40 00	3,050 65	1,600 00
Tecumseh	Lenawee	612	36,000 00	4,700 00	120 00	31 80	6,480 76	----------
Tekonsha	Calhoun	180	5,000 00	999 00	55 00	28 00	4,238 39	3,925 00
Thornville	Lapeer	100	2,000 00	604 00	50 00	22 00	667 00	59 65
Three Oaks	Berrien	256	5,900 00	1,530 00	80 00	30 00	1,883 30	----------
Three Rivers, No. 1	St. Joseph	546	20,000 00	4,230 00	110 00	34 70	9,446 22	2,400 00
Three Rivers, No. 4	St. Joseph	322	5,000 00	1,684 00	80 00	24 00	2,399 21	----------
Traverse City	G. Traverse	619	10,000 00	5,854 85	133 00	43 10	10,062 65	5,769 53
Trenton	Wayne	415	4,000 00	1,093 25	50 00	29 66	1,336 89	----------
Tuscola	Tuscola	150	2,000 00	775 00	55 00	25 00	990 47	----------
Union City	Branch	534	25,000 00	4,070 00	93 00	31 50	9,593 98	8,500 00
Unionville	Tuscola	263	3,000 00	675 00	50 00	25 00	1,083 51	15 00
Utica	Macomb	335	8,000 00	2,060 00	47 30	32 00	2,675 31	----------
Vandalia	Cass	151	10,000 00	1,326 00	79 68	27 54	1,581 01	----------
Vassar	Tuscola	608	20,000 00	3,030 00	100 00	32 20	6,440 90	2,000 00
Vermontville	Eaton	217	8,000 00	1,358 00	65 00	32 22	1,670 22	----------
Vernon	Shiawassee	196	3,000 00	1,350 00	75 00	30 00	1,565 12	----------
Vicksburg	Kalamazoo	231	6,000 00	1,629 00	75 00	28 00	1,970 90	----------
Vriesland	Ottawa	188	500 00	770 00	52 00	25 00	851 85	----------
Waconsta	Clinton	108	3,000 00	585 00	----	32 00	805 86	----------
Waldron	Hillsdale	117	2,000 00	675 00	45 00	25 00	945 05	----------
Washington	Macomb	100	1,500 00	576 13	39 20	24 79	683 14	----------
Watervliet	Berrien	130	2,200 00	810 00	55 00	35 00	914 73	1 01
Watrousville	Tuscola	105	600 00	675 00	50 00	25 00	786 40	----------
Wayland	Allegan	186	5,000 00	1,340 25	83 00	21 08	2,527 77	1,500 00
Wayne	Wayne	403	20,000 00	2,175 00	80 00	27 50	5,619 64	14,250 00
Webberville	Ingham	235	2,500 00	837 50	50 00	24 30	1,039 32	----------
W. Bay City No. 1	Bay	1,072	12,500 00	2,606 50	100 00	28 68	4,335 92	540 00
W. Bay City, No. 2	Bay	1,671	30,500 00	7,030 00	140 00	41 30	16,208 60	----------
W. Bay City, No. 3	Bay	348	6,300 00	1,150 00	55 00	30 00	2,155 53	2,200 00
West Branch	Ogemaw	174	800 00	765 00	50 00	35 00	1,104 58	----------
White Cloud	Newaygo	156	3,200 00	800 00	50 00	30 00	1,224 81	2,400 00
Whitehall	Muskegon	563	25,000 00	3,280 00	100 00	38 00	7,476 49	----------
White Pigeon	St. Joseph	272	20,000 00	2,800 00	120 00	32 00	3,665 38	----------
White Rock	Huron	143	2,000 00	436 25	52 00	22 03	498 91	----------
Williamston	Ingham	416	15,000 00	2,296 00	75 00	32 00	7,703 11	12,000 00
Woodland	Barry	113	200 00	424 00	40 00	23 00	460 35	----------
Wyandotte	Wayne	1,251	45,000 00	5,926 00	69 00	32 23	7,853 71	----------
Ypsilanti	Washtenaw	1,555	55,000 00	10,650 00	90 00	35 00	17,505 59	----------
Zeeland	Ottawa	385	5,000 00	1,215 00	60 00	20 50	2,993 89	1,500 00
Zilwaukee	Saginaw	471	6,000 00	1,800 00	52 70	28 39	2,316 78	----------

TABLE XVI.

Financial Statistics of Two Hundred and Twenty-six Graded Schools, as reported by Superintendents and Principals for the School Year 1883–4.

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction.	Cost per capita for Incidentals.	Total Cost per capita.
Ada	$468 00	$261 00	----------	$729 00	$108 00	$837 00	$7 44	$1 10	$8 54
Addison	550 00	306 00	----------	856 00	200 00	1,056 00	10 70	2 50	13 20
Adrian	1,800 00	11,550 00	$550 00	13,900 00	6,684 00	20,584 00	13 28	6 39	19 67
Allen	500 00	225 00	----------	725 00	200 00	925 00	12 00	3 30	15 30
Albion	1,100 00	3,952 00	----------	5,052 00	----------	----------	8 69	------	------
Algonac	630 00	720 00	----------	1,350 00	401 96	1,751 96	6 30	1 87	8 17
Alma	800 00	1,200 00	----------	2,000 00	1,000 00	3,000 00	8 33	4 16	12 49
Almont	800 00	900 00	----------	1,700 00	434 62	2,134 62	9 44	2 41	11 85
Alpena	1,250 00	7,442 50	----------	8,692 50	4,034 27	12,726 77	10 37	4 81	15 18
Ann Arbor	2,000 00	18,285 00	1,300 00	21,585 00	6,588 13	28,173 13	13 82	4 22	18 04
Au Sable	800 00	1,192 00	----------	1,992 00	194 37	2,186 37	11 92	1 16	13 08
Bad Axe	300 00	420 00	----------	720 00	236 52	956 52	3 27	1 07	4 34
Bath	395 00	236 50	----------	631 50	160 48	791 98	4 82	1 22	6 04
Battle Creek	1,900 00	11,850 00	450 00	14,200 00	4,163 00	18,363 00	11 52	3 38	14 90
Beacon	1,000 00	3,000 00	----------	4,000 00	3,159 00	7,159 00	12 53	9 90	22 43
Bear Lake	500 00	555 00	----------	1,055 00	251 54	1,306 54	9 67	23	9 90
Belding	900 00	600 00	----------	1,500 00	394 69	1,894 69	11 63	3 06	14 69
Benton Harbor	900 00	2,827 50	----------	3,727 50	1,447 13	5,174 63	7 23	2 83	10 06
Big Rapids	1,650 00	6,723 05	----------	8,373 05	4,910 83	13,283 88	11 03	6 47	17 50
Birmingham	600 00	1,460 00	----------	2,060 00	655 80	2,715 80	8 84	2 81	11 65
Blissfield, No. 1, fl	600 00	720 00	----------	1,320 00	260 00	1,580 00	8 09	1 59	9 68
Blissfield, No. 2, fl	600 00	740 00	----------	1,340 00	325 00	1,665 00	9 50	2 30	11 80
Breedsville	376 00	600 00	----------	976 00	104 40	1,080 40	7 00	1 32	8 32
Bridgeport	405 00	270 00	----------	675 00	137 28	812 28	7 40	1 54	8 94
Brighton	1,000 00	1,070 00	----------	2,070 00	465 00	2,535 00	11 50	2 58	14 08
Buchanan	1,000 00	2,238 75	----------	3,238 75	1,360 91	4,599 66	------	------	------
Caledonia	600 00	400 00	----------	1,000 00	100 00	1,100 00	7 00	70	7 70
Calumet	2,150 00	10,517 37	772 60	13,439 97	6,035 76	19,475 73	11 70	5 18	16 88
Cannonsburg	238 00	190 00	----------	428 00	187 54	615 54	------	------	------
Capac	550 00	472 50	----------	1,022 50	325 27	1,347 77	6 77	2 15	8 92
Caro	830 00	1,535 00	----------	2,365 00	1,776 74	4,141 74	7 60	5 71	13 31
Cassopolis	800 00	2,615 00	----------	3,415 00	713 83	4,128 83	15 88	3 41	19 29
Central Mine	1,000 00	810 00	----------	1,810 00	590 35	2,400 35	11 21	3 66	14 87
Ceresco	300 00	345 00	----------	645 00	90 00	735 00	7 68	1 07	8 75
Charlevoix	800 00	855 00	----------	1,655 00	300 00	1,955 00	6 90	1 25	8 15
Charlotte	1,100 00	6,705 00	----------	7,805 00	3,110 00	10,915 00	11 80	4 71	16 51
Chase	600 00	850 00	----------	1,450 00	965 16	2,415 16	7 75	5 15	12 90
Cheboygan	1,100 00	1,770 00	----------	2,870 00	1,046 23	3,916 23	9 29	3 38	12 67
Chelsea	800 00	1,790 00	----------	2,590 00	300 00	2,890 00	9 28	1 07	10 35
Clayton	630 00	270 00	----------	900 00	76 00	976 00	8 82	75	9 57
Clinton	800 00	1,188 00	----------	1,988 00	521 00	2,509 00	10 52	2 75	13 27
Coloma	285 00	465 00	----------	----------	----------	----------	------	------	------
Constantine	1,250 00	2,280 00	----------	3,530 00	2,292 67	5,822 67	7 56	4 91	12 47
Coopersville	585 00	810 00	----------	1,395 00	150 00	1,545 00	7 92	85	8 77
Coral	500 00	300 00	----------	800 00	150 00	950 00	8 96	1 68	10 64
Corunna	1,550 00	1,720 00	----------	3,270 00	2,000 00	5,270 00	11 31	6 92	18 23
Croswell	540 00	405 00	----------	945 00	149 59	1,094 59	6 75	1 07	7 82
Crystal Falls	800 00	900 00	----------	1,700 00	265 00	1,965 00	16 19	2 52	18 71
Dansville	600 00	840 00	----------	1,440 00	----------	----------	20 00	------	------
Decatur	800 00	2,200 00	----------	3,000 00	382 09	3,382 09	7 85	3 16	11 01
Detroit	4,000 00	167,040 62	5,800 00	176,840 62	70,957 24	247,797 86	13 25	5 95	19 20
Dexter	840 00	1,560 00	----------	2,400 00	681 00	3,081 00	9 41	2 67	12 08
Douglas	800 00	540 00	----------	1,340 00	420 77	1,760 77	5 89	3 13	9 02
Dowagiac	1,000 00	3,140 00	----------	4,140 00	1,200 00	5,340 00	10 74	3 11	13 85
Dryden	600 00	290 00	----------	890 00	240 00	1,130 00	17 80	4 80	22 60

TABLE XVI.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction.	Cost per capita for Incidentals.	Total Cost per capita.
East Saginaw	$2,500 00	$31,170 00	$1,200 00	$34,870 00	$13,552 23	$48,422 23	$11 87	$4 42	$15 79
East Tawas	1,000 00	1,440 00	.....	2,440 00	.....	.....	8 83	.....	.....
Eaton Rapids	800 00	2,305 00	.....	3,105 00	700 00	3,805 00	8 49	1 89	10 38
Ecorse	405 00	225 00	.....	630 00	132 88	762 88	5 67	1 20	6 87
Edmore	800 00	900 00	.....	1,700 00	150 00	1,850 00	.....	.....	.....
Elk Rapids	900 00	2,457 50	.....	3,357 50	2,647 00	6,004 50	11 19	8 82	20 01
Elm Hall	520 00	287 00	.....	807 00	159 48	966 48	9 50	1 87	11 37
Elsie	450 00	504 00	.....	954 00	163 58	1,117 58	.....	.....	.....
Escanaba	1,100 00	4,797 50	.....	5,897 50	2,357 64	8,255 14	10 23	4 09	14 32
Evart	750 00	1,440 00	.....	2,190 00	740 00	2,930 00	10 53	3 39	13 92
Farmers	.....	346 00	.....	346 00	66 66	412 66	4 73	91	5 64
Farwell	712 00	684 00	.....	1,396 00	404 25	1,800 75	13 97	4 04	18 01
Fenton	900 00	3,900 00	.....	4,800 00	1,611 78	6,411 78	12 37	4 07	16 44
Ferrysburg	480 00	510 00	.....	990 00	300 00	1,290 00	7 07	2 14	9 21
Fillmore	456 00	277 00	.....	733 00	82 00	815 00	.....	.....	.....
Flint	1,500 00	14,396 30	550 00	16,446 30	6,395 44	22,841 74	11 27	4 38	15 65
Fowler	450 00	270 00	.....	720 00	151 89	871 89	7 00	1 47	8 47
Freeland	450 00	250 00	.....	700 00	25 00	725 00	7 29	26	7 55
Freeport	350 00	220 00	.....	570 00	45 28	615 28	8 38	66	9 04
Fremont	700 00	1,250 00	.....	1,950 00	9 34	2,884 00	4 26	2 04	6 30
Galesburg	700 00	960 00	.....	1,660 00	404 40	2,064 40	10 71	2 60	13 31
Gaylord	540 00	627 50	.....	1,167 50	200 70	1,368 20	9 73	1 67	11 40
Gobleville	500 00	300 00	.....	800 00	363 00	1,163 00	5 33	2 42	7 75
Grand Haven	1,500 00	8,434 00	300 00	10,234 00	3,769 49	14,003 49	10 13	3 73	13 86
Grand Ledge	700 00	1,272 00	.....	1,972 00	422 00	2,394 00	5 62	80	6 42
Grand Rapids City	2,250 00	66,830 08	2,900 00	71,980 08	57,787 96	129,768 04	13 06	9 57	22 63
Grand Rapids, No. 1	800 00	890 00	.....	1,690 00	750 00	2,440 00	7 86	3 48	11 34
Greenland, No. 1	750 00	300 00	.....	1,050 00	269 06	1,319 06	21 42	5 49	26 91
Greenland	750 00	350 00	.....	1,100 00	200 00	1,300 00	15 00	2 70	17 70
Grindstone	500 00	230 00	.....	730 00	163 32	893 32	4 80	1 07	5 87
Hancock	1,500 00	3,850 00	300 00	5,650 00	3,811 71	9,461 71	14 62	9 62	24 24
Harrisville	900 00	900 00	.....	1,800 00	300 00	2,100 00	9 00	1 50	10 50
Hart	700 00	1,050 00	.....	1,750 00	306 83	2,056 83	9 45	1 69	11 14
Hastings	1,100 00	3,900 00	35 00	5,035 00	2,509 07	7,544 07	7 35	3 66	11 01
Hillsdale	1,200 00	4,249 75	.....	5,449 75	4,288 29	9,738 04	8 13	6 40	14 53
Holland	900 00	3,511 75	.....	4,411 75	1,544 19	5,955 94	6 99	2 42	9 34
Holland, No. 9	358 75	.....	.....	358 75	260 85	619 60	5 51	4 01	9 52
Holly	1,000 00	1,850 00	.....	2,850 00	770 00	3,620 00	10 29	2 77	13 06
Houghton	1,500 00	6,250 00	312 00	8,062 00	4,388 80	12,450 80	13 97	7 60	21 57
Howard City	800 00	779 00	79 00	1,658 00	335 42	1,993 42	11 59	2 33	13 92
Howell	1,000 00	3,060 00	.....	4,060 00	758 14	4,818 14	9 53	1 77	11 30
Hubbardston	600 00	600 00	.....	1,200 00	250 00	1,450 00	7 40	1 54	8 94
Humboldt	750 00	400 00	.....	1,150 00	695 33	1,845 33	6 08	3 67	9 75
Imlay City	600 00	905 00	.....	1,505 00	200 00	1,705 00	7 06	50	7 56
Inverness, No. 3, fl	700 00	350 00	.....	1,050 00	313 38	1,363 38	8 40	2 50	10 90
Ironton	390 00	622 00	.....	982 00	153 00	1,135 00	3 37	91	4 28
Ithaca	975 00	1,210 00	.....	2,185 00	2,549 25	4,734 25	7 74	9 07	16 81
Jackson, No. 1	1,500 00	18,995 55	.....	20,495 55	5,602 92	26,098 47	13 96	3 81	17 77
Jackson, No. 17	1,400 00	6,900 00	.....	8,300 00	2,662 80	10,962 80	9 21	2 95	12 16
Jonesville	868 00	1,890 00	.....	2,758 00	765 44	3,523 44	14 99	4 16	19 15
Kalamazoo	1,800 00	19,213 00	700 00	21,713 00	6,122 61	27,835 61	11 53	3 25	14 78
Kalkaska	650 00	1,150 00	.....	1,800 00	577 21	2,377 21	11 76	3 77	15 53
Lake Linden	1,300 00	5,890 00	700 00	7,890 00	3,242 31	11,132 31	11 95	4 91	16 86
Lakeside	650 00	1,386 50	.....	2,036 50	673 17	2,709 67	5 85	1 93	7 78
L'Anse	800 00	1,560 00	.....	2,360 00	3,047 99	5,407 99	11 07	3 23	14 30
Lansing	1,700 00	12,862 00	.....	14,562 00	10,381 00	24,943 00	13 50	9 66	23 16
Lawrence	600 00	864 00	189 00	1,653 00	418 40	2,071 40	8 14	2 06	10 20
Lawton	600 00	756 00	.....	1,356 00	543 20	1,899 20	7 00	3 33	10 33
Leland	450 00	240 00	.....	690 00	60 00	750 00	8 02	69	8 71
Lisbon	600 00	300 00	.....	900 00	161 98	1,061 98	12 67	2 28	14 95

TABLE XVI.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per capita for Instruction.	Cost per capita for Incidentals.	Total Cost per capita.
Litchfield	$600 00	$787 50	.....	$1,387 50	$346 21	$1,733 71	$6 76	$1 68	$8 44
Lowell	800 00	2,650 00	.....	3,450 00	1,146 83	4,596 83	7 41	2 46	9 87
Ludington	1,200 00	7,309 30	.....	8,509 30	2,753 41	11,262 71	10 23	3 31	13 54
Mancelona	650 00	1,422 50	.....	2,072 50	1,236 10	3,308 60	8 12	4 85	12 97
Manistee	1,500 00	12,193 56	$700 00	14,393 56	4,790 65	19,184 21	13 88	4 45	18 33
Manton	450 00	250 00	.....	700 00	155 28	855 28	.....	.....	.....
Marine City	648 00	1,152 00	.....	1,800 00	822 75	2,622 75	.....	.....	.....
Marlette	600 00	550 00	.....	1,150 00	390 49	1,540 49	5 66	1 92	7 58
Marshall	1,400 00	6,797 48	.....	8,197 48	2,267 88	10,465 36	14 09	3 88	17 97
Mason	1,000 00	2,501 75	.....	3,501 75	845 90	4,347 65	9 69	2 41	12 10
McBrides	700 00	558 00	.....	1,258 00	186 90	1,444 90	8 73	1 29	10 02
Mecosta	700 00	700 00	.....	1,400 00	100 00	1,500 00	11 20	80	12 00
Memphis	700 00	1,280 00	.....	1,980 00	312 41	1,292 41	12 77	2 01	14 78
Mendon	700 00	1,375 00	.....	2,075 00	558 75	2,633 78	8 21	2 86	11 07
Michigamme	812 00	1,015 00	.....	1,827 00	820 14	2,647 14	5 83	2 62	8 45
Middleville	650 00	1,900 00	.....	2,550 90	396 00	2,946 00	.....	.....	.....
Midland	1,000 00	2,690 00	60 00	3,750 00	2,298 00	6,048 00	11 76	7 26	19 02
Midland, No. 6	600 00	240 00	33 25	873 25	350 02	1,223 27	15 05	6 05	21 10
Milford	700 00	1,500 00	67 50	2,267 50	931 50	3,199 00	8 01	3 29	11 30
Millington	405 00	255 00	.....	660 00	115 00	775 00	4 34	75	5 09
Monroe	1,200 00	2,903 75	.....	4,103 75	1,559 04	5,662 79	9 32	3 54	12 86
Morley	500 00	315 00	.....	815 00	174 17	989 17	13 00	2 54	15 54
Mount Clemens	1,200 00	2,640 00	.....	3,840 00	1,800 00	5,640 00	8 25	3 87	12 12
Mount Morris	450 00	720 00	.....	1,170 00	115 00	1,285 00	12 44	1 22	13 66
Napoleon	660 00	600 00	.....	1,260 00	318 22	1,578 22	.....	.....	.....
Nashville	650 00	1,020 00	.....	1,670 00	.....	.....	8 50	.....	.....
Negaunee	1,300 00	4,410 00	.....	5,710 00	5,249 72	10,959 72	8 00	9 52	17 52
New Groningen	400 00	100 00	.....	500 00	145 07	645 07	10 87	3 15	14 02
New Haven	540 00	423 00	.....	963 00	259 02	1,222 02	7 55	2 01	9 56
Niles	1,200 00	6,857 30	.....	8,057 30	6,546 49	14,603 79	11 83	9 62	21 45
Northville	900 00	1,160 00	.....	2,060 00	505 14	2,565 14	9 40	1 85	11 25
Norway	800 00	2,055 00	.....	2,855 00	1,323 25	4,178 25	7 60	3 52	11 12
Nunica	450 00	650 00	.....	1,100 00	1,296 74	2,396 74	4 64	1 40	6 04
Okemos	320 00	550 00	.....	870 00	90 00	960 00	4 66	79	5 45
Opechee	1,000 00	1,099 00	.....	2,099 00	1,149 82	3,248 82	9 71	5 31	15 02
Ortonville	550 00	220 00	.....	770 00	51 84	821 84	6 69	4 50	11 19
Oscoda	750 00	1,665 00	.....	2,415 00	560 00	2,975 00	7 36	1 70	9 06
Osseo	316 22	262 07	.....	578 29	180 45	758 74	7 08	2 17	9 25
Otsego	800 00	1,758 00	.....	2,558 00	375 00	2,933 00	10 08	1 22	11 30
Otter Lake	390 00	312 00	.....	702 00	136 39	838 39	5 85	1 13	6 98
Ovid	1,200 00	1,979 60	.....	3,179 00	977 66	4,156 66	9 29	2 86	12 15
Owosso	1,200 00	5,430 00	.....	6,630 00	4,046 20	10,676 20	10 95	6 68	17 63
Oxford	700 00	1,180 00	.....	1,880 00	598 19	2,478 19	3 25	1 21	4 46
Palmyra	360 00	275 00	.....	635 00	113 49	748 49	5 30	95	6 25
Parma	900 00	936 00	.....	1,836 00	1,324 85	3,160 85	8 38	6 04	14 42
Paw Paw	1,200 00	2,420 00	.....	3,620 00	907 99	4,527 99	13 55	3 66	17 21
Phœnix	675 00	875 00	.....	1,550 00	421 88	1,971 88	8 80	2 41	11 21
Pierson	450 00	300 00	.....	750 00	102 15	852 15	11 02	1 51	12 53
Plainwell	900 00	1,919 00	.....	2,819 00	899 26	3,718 26	9 10	2 93	12 02
Pontiac	1,500 00	8,480 00	.....	9,980 00	4,009 02	13,989 02	13 07	5 25	18 32
Port Austin	800 00	600 00	.....	1,400 00	401 00	1,801 00	9 86	2 82	12 68
Port Hope	598 50	325 00	.....	923 50	138 05	1,061 55	7 10	1 06	8 16
Port Huron	1,500 00	10,190 00	.....	11,690 00	600 00	12,290 00	7 86	40	8 26
Portland	1,000 00	2,265 00	.....	3,265 00	764 97	4,029 97	9 00	2 33	11 33
Port Sanilac	630 00	270 00	.....	900 00	.....	.....	5 45	.....	.....
Quincy Mine	900 00	1,350 00	.....	2,250 00	899 80	3,149 80	13 89	5 55	19 44
Reed City	800 00	1,800 00	.....	2,600 00	300 00	2,900 00	6 90	80	7 70
Republic	1,270 00	2,150 00	8 00	3,428 00	430 05	3,858 05	9 26	1 16	10 42
Rochester	800 00	890 00	.....	1,690 00	600 00	2,290 00	9 82	3 48	13 30
Rockford	800 00	1,150 00	.....	1,950 00	445 00	2,395 00	6 44	3 13	9 57

TABLE XVI.—*Continued.*

Districts.	Amount paid Superintendent or Principal.	Amount paid Regular Teachers.	Amount paid Special Teachers.	Total Amount paid for Instruction.	Amount paid for Incidentals.	Total Cost of Schools.	Cost per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
Rockland	$1,000 00	$1,850 00	.....	$2,850 00	.....	.....	.....	.....	.....
Romeo	1,500 00	2,275 00	.....	3,775 00	$1,425 30	$5,200 30	$11 22	$4 30	$15 52
Roscommon	450 00	405 00	.....	855 00	.....	.....	.....	.....	.....
Royal Oak	200 00	240 00	.....	440 00	135 47	575 47	1 74	94	2 68
Saginaw	1,800 00	14,150 00	$766 66	16,716 66	5,200 00	21,916 66	10 05	3 12	13 17
St. Charles	675 00	463 60	.....	1,138 60	200 00	1,338 60	6 77	1 19	7 96
St. Clair	1,100 00	3,500 00	.....	4,600 00	700 00	5,300 00	12 74	1 93	14 67
St. Ignace	1,355 00	1,742 00	.....	3,097 00	1,770 50	4,867 50	8 44	4 83	13 27
St. Johns	1,000 00	4,180 00	320 00	5,500 00	1,111 08	6,611 08	11 78	2 34	14 12
St. Joseph	900 00	3,757 00	.....	4,657 00	6,874 66	11,531 66	9 00	13 29	22 29
St. Louis	1,000 00	2,555 00	.....	3,555 00	800 00	4,355 00	6 37	1 41	7 78
Saline	900 00	1,640 00	.....	2,540 00	692 24	3,232 24	10 41	2 84	13 25
Salt River	360 00	208 00	.....	568 00	96 86	664 86	5 68	96	6 64
Sand Beach	525 00	1,000 00	.....	1,525 00	.....	.....	9 25	.....	.....
Sand Lake	720 00	540 00	.....	1,260 00	324 56	1,584 56	5 75	1 48	7 23
Sanilac, No. 2	252 00	196 00	.....	448 00	89 67	537 67	.....	.....	.....
Saranac	700 00	916 00	.....	1,616 00	514 09	2,130 09	8 68	2 76	11 44
Sault Ste. Marie	900 00	1,032 00	.....	1,932 00	1,220 59	3,152 59	7 35	4 64	11 99
Schoolcraft	900 00	1,718 00	.....	2,618 00	1,339 00	3,957 00	10 72	5 48	16 20
South Haven	1,000 00	1,584 60	.....	2,584 60	515 15	3,099 75	8 28	1 65	9 93
Sparta	500 00	750 00	.....	1,250 00	397 51	1,647 51	13 34	.....	.....
Springport	600 00	1,175 00	.....	1,775 00	.....	.....	.....	.....	.....
Springwells, No. 1	700 00	1,650 00	.....	2,350 00	815 49	3,165 49	4 80	1 66	6 46
Stanton	900 00	2,800 00	.....	3,700 00	1,139 93	4,839 93	8 79	2 70	11 49
Sturgis	1,000 00	3,069 50	.....	4,069 50	2,174 94	6,244 44	10 47	5 38	15 85
Tawas City	900 00	800 00	.....	1,700 00	946 15	2,646 15	5 76	3 20	8 96
Tekonsha	495 00	504 00	.....	999 00	150 00	1,149 00	.....	.....	.....
Thornville	450 00	154 00	.....	604 00	63 00	667 00	5 44	50	5 94
Three Oaks	720 00	810 00	.....	1,530 00	283 58	1,813 58	10 66	1 85	12 51
Three Rivers	1,100 00	3,130 00	.....	4,230 00	1,937 77	6,167 77	13 13	6 01	19 14
Three Rivers, No. 4	800 00	864 00	.....	1,664 00	1,035 00	2,699 00	6 52	4 06	10 58
Trenton	500 00	593 25	.....	1,093 25	243 64	1,336 89	4 64	92	5 56
Union City	1,500 00	2,570 00	.....	4,070 00	820 75	4,890 75	12 80	2 58	15 38
Unionville	450 00	225 00	.....	675 00	361 89	1,036 89	5 32	1 78	5 10
Vandalia	637 50	688 50	.....	1,326 00	181 66	1,507 66	10 36	1 80	12 16
Vassar	1,000 00	2,240 00	.....	3,240 00	892 26	4,132 26	10 35	2 85	13 20
Vernon	750 00	600 00	.....	1,350 00	200 00	1,550 00	7 75	1 14	8 89
Vicksburg	675 00	954 00	.....	1,629 00	341 90	1,970 90	5 80	1 48	7 28
Vriesland	520 00	250 00	.....	770 00	81 95	851 95	3 83	40	4 23
Wacousta	315 00	270 00	.....	585 00	150 00	735 00	6 35	.....	.....
Waldron	450 00	225 00	.....	675 00	.....	.....	.....	.....	.....
Washington	360 00	225 00	.....	585 00	.....	.....	5 74	.....	.....
Watervleit	495 00	315 00	.....	810 00	104 73	914 73	6 28	81	7 09
Webberville	450 00	437 50	.....	887 50	121 82	1,009 32	6 82	93	7 75
West Bay City, No. 1	1,000 00	1,606 50	.....	2,606 50	1,006 32	3,612 82	4 30	1 68	5 96
West Branch	450 00	315 00	.....	765 00	.....	.....	7 57	.....	.....
White Cloud	500 00	300 00	.....	800 00	100 00	900 00	7 92	1 00	8 92
Whitehall	1,000 00	2,280 00	.....	3,280 00	1,474 00	4,754 89	10 51	4 72	15 23
Williamston	750 00	1,600 00	.....	2,350 00	567 84	2,917 84	8 14	1 96	10 10
Wyandotte	1,000 00	3,910 00	.....	4,910 00	1,200 00	6,110 00	8 29	2 03	10 32
Ypsilanti	1,500 00	8,225 00	900 00	10,625 00	4,278 00	14,906 00	14 43	5 81	20 24
Zilwaukee	700 00	1,230 00	.....	1,930 00	400 00	2,330 00	.....	.....	.....

TABLE XVII.

Miscellaneous Statistics of Two Hundred and Twenty-one Graded Schools, as reported by Superintendents and Principals, for the School Year 1883-4.

Districts.	Total Enrollment.	Av. No. Belonging.	Av. Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	Av. No. of Pupils to each Teacher.	Portion of Superintendent's time given to supervision.	Number of Pupils Studying.				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Ada	141	98	79	1	1	-	49	------	----	----	----	----	----	----	----
Addison	90	80	72	1	1	-	40	------	----	----	----	----	----	----	----
Adrian	1,522	1,046	969	3	28	1	33	all	52	----	6	24	----	yes	yes
Allen	89	60	54	1	1	-	39	------	----	----	----	10	----	----	yes
Albion	844	481	438	1	13	-	37	3-4	----	----	----	----	----	yes	yes
Algonac	268	214	204	1	3	-	53	1-40	----	----	----	----	----	----	yes
Alma	587	240	210	1	4	-	60	1-10	6	----	----	8	----	----	yes
Almont	240	180	160	1	3	-	45	1-10	----	----	----	----	----	----	yes
Alpena	1,585	838	769	1	17	-	46	3-4	13	----	----	----	----	----	----
Ann Arbor	1,958	1,561	1,500	7	33	3	40	3-5	159	40	66	80	yes	yes	yes
Au Sable	217	167	154	1	3	-	41	------	----	----	----	----	----	----	yes
Bad Axe	219	176	108	1	2	-	56	------	----	----	----	----	----	----	----
Bath	131	131	75	1	2	-	43	------	----	----	----	----	----	----	----
Battle Creek	1,865	1,231	1,124	4	29	1	39	1-2	51	2	----	30	yes	----	yes
Beacon	433	319	264	1	5	-	53	------	----	----	----	----	yes	yes	yes
Bear Lake	138	100	74	1	2	-	36	------	----	----	----	----	----	----	----
Belding	214	129	118	1	2	-	43	1-12	5	----	----	----	----	----	yes
Benton Harbor	552	510	475	1	9	2	51	1-4	13	----	----	12	----	----	yes
Big Rapids	1,260	759	661	1	18	-	40	2-3	15	----	----	11	----	----	----
Birmingham	375	233	210	1	5	-	39	------	5	----	----	8	----	yes	yes
Blissfield	217	163	141	1	3	-	41	1-90	6	----	----	----	----	----	yes
Blissfield, No. 2, fl.	169	141	130	1	3	-	37	1-18	8	----	----	----	----	----	yes
Breedsville	79	61	45	1	1	-	30	------	----	----	----	----	----	----	----
Bridgeport	93	90	55	1	1	-	45	------	----	----	----	----	----	----	----
Brighton	285	189	162	1	4	-	36	1-60	2	----	----	----	----	yes	yes
Caledonia	162	150	102	1	2	-	50	------	----	----	----	----	----	----	yes
Calumet	1,726	1,148	944	5	10	1	54	1-2	----	----	20	7	yes	----	----
Cannonsburg	84	------	------	1	1	-	----	1-10	----	----	----	----	----	----	----
Capac	239	151	130	1	2	-	50	------	----	----	----	4	----	----	----
Caro	446	311	278	1	6	-	44	1-6	3	----	----	----	----	----	----
Cassopolis	242	215	203	1	6	-	39	------	7	----	----	9	----	yes	yes
Central Mine	207	161	41	2	1	-	54	------	----	----	----	----	----	----	----
Ceresco	84	84	75	1	1	-	42	------	----	----	----	----	----	----	----
Charlevoix	240	225	201	1	3	-	56	1-4	4	----	----	----	----	----	----
Charlotte	1,073	639	613	1	17	-	36	7-9	16	----	6	----	----	----	----
Chase	332	187	152	1	3	-	47	------	----	----	----	----	----	----	----
Cheboygan	309	286	257	2	4	-	48	1-60	7	----	----	----	----	----	----
Chelsea	380	279	253	1	6	-	39	1-8	----	----	----	----	----	----	----
Clayton	120	102	------	1	1	-	51	------	----	----	----	----	----	----	----
Clinton	232	189	173	1	4	-	38	2-9	----	----	----	----	----	----	----
Caloma	115	------	102	----	2	-	----	------	----	----	----	----	----	----	----
Constantine	467	348	294	2	6	-	43	2-7	22	----	----	18	----	----	yes
Coopersville	329	216	179	1	3	-	54	------	----	----	----	----	----	----	yes
Coral	198	89	77	1	1	-	41	------	----	----	----	----	----	----	yes
Corunna	433	289	276	1	7	-	36	all	12	3	----	----	----	----	----
Croswell	180	139	102	1	2	-	45	------	----	----	----	----	----	----	----
Crystal Falls	190	105	90	1	2	-	35	------	----	----	----	----	----	----	----
Dansville	210	70	89	1	3	-	18	1-6	----	----	----	2	----	----	----
Decatur	291	279	270	1	6	-	39	1-5	12	----	----	9	----	----	----
Detroit	26,552	13,337	12,448	15	281	4	45	all	215	15	77	172	yes	yes	----
Dexter	325	255	228	1	6	-	37	1-20	5	----	----	5	----	----	----
Douglass	219	134	120	1	2	-	45	------	----	----	----	----	----	----	----
Dowagiac	585	385	361	3	8	-	35	3-8	5	----	----	3	----	----	----
Dryden	184	100	95	1	1	-	50	------	----	----	----	----	----	----	yes
East Saginaw	4,245	3,066	2,912	4	65	2	44	all	72	12	----	43	yes	yes	yes

TABLE XVII.—*Continued.*

Districts.	Total Enrollment.	Av. No. Belonging.	Av. Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	Av. No. of Pupils to each Teacher.	Portion of Superintendent's time given to Supervision.	Number of Pupils Studying— Latin.	Greek.	French.	German.	Is Special Instruction given in— Vocal Music?	Drawing?	Penmanship?
East Tawas	457	276	248	1	4	....	55	1-5	3	....	....	....	yes	....	yes
Eaton Rapids	582	370	328	1	8	....	41	3-8	7	....	....	8	....	....	....
Ecorse	170	150	110	1	1	....	75	1-10	....	....	....	....	....	....	yes
Elk Rapids	473	300	240	1	7	....	37	1-4	6	....	....	....	....	yes	yes
Elm Hall	85	85	73	1	1	....	43	.....	....	....	....	....	....	....	....
Elsie	178	.....	89	1	2	....	....	.....	....	....	....	....	....	....	....
Escanaba	826	576	527	1	12	....	44	1-4	35	....	....	....	....	....	....
Evart	300	218	194	1	4	....	43	.....	....	....	....	....	....	....	....
Farmers	88	75	35	1	1	....	37	.....	....	....	....	....	....	....	....
Farwell	189	100	89	1	2	....	99	.....	....	....	....	....	....	....	....
Fenton	608	396	360	2	9	....	38	1-3	22	....	3	25	....	....	....
Ferrysburg	230	140	115	1	2	....	46	.....	....	....	....	....	....	....	....
Fillmore	138	.....	85	1	1	....	....	.....	....	....	....	....	yes	....	yes
Flint	2,407	1,450	1,362	3	35	2	36	2-3	81	3	20	19	....	....	yes
Fowler	103	103	68	1	1	....	51	.....	....	....	....	....	....	....	....
Freeland	117	90	77	1	1	....	48	1-10	....	....	....	....	....	yes	yes
Freeport	112	.....	68	1	1	....	....	.....	....	....	....	....	....	....	....
Fremont	458	213	179	1	4	....	42	1-6	....	....	....	....	....	....	yes
Galesburg	200	155	.....	1	3	....	38	.....	....	....	....	....	....	....	....
Gaylord	193	120	104	1	2	....	40	.....	....	....	....	....	....	....	....
Grand Haven	1,541	1,010	948	3	21	1	40	all	16	....	....	....	yes	....	....
Grand Ledge	387	263	107	2	4	....	44	1-20	....	....	....	....	....	....	....
Grand Rapids City	10,728	5,511	5,240	7	131	3	40	all	133	18	17	80	yes	yes	yes
Grand Rapids, No. 1	410	215	171	1	3	....	53	1-3	....	....	....	....	....	....	....
Greenland, No. 1	80	49	29	1	1	....	25	.....	....	....	....	....	....	....	....
Greenland, No. 2	86	73	51	1	1	....	26	.....	2	....	....	....	....	....	....
Grindstone City	165	152	137	1	1	....	76	.....	....	....	....	....	....	....	yes
Hancock	500	396	377	2	6	1	99	1-2	3	....	....	....	yes	....	....
Harrisville	202	.....	118	4	3	....	....	1-60	....	....	....	....	....	....	....
Hart	237	185	165	1	3	....	46	1-10	....	....	....	....	yes	....	yes
Hastings	905	685	651	1	12	....	52	.....	22	....	....	7	yes	yes	yes
Hillsdale	768	674	624	1	12	....	51	2-5	....	....	....	....	....	....	....
Holland	987	637	597	1	12	....	49	1-2	....	....	....	....	....	....	yes
Holland No. 9	65	.....	43	1	....	....	43	.....	....	....	....	....	....	yes	yes
Holly	520	277	244	1	6	....	39	1-4	12	....	2	11	....	yes	yes
Houghton	753	577	534	2	11	1	41	2-5	....	....	....	....	yes	....	....
Howard City	262	143	129	1	2	....	47	.....	....	....	....	....	....	yes	yes
Howell	759	426	386	1	9	....	42	1-8	6	....	....	8	....	....	....
Hubbardston	162	.....	111	1	2	....	....	.....	....	....	....	....	....	....	....
Humboldt	189	189	126	1	1	....	94	.....	....	....	....	....	....	....	....
Imlay City	423	232	213	1	3	....	58	1-4	....	....	....	....	....	....	....
Inverness	154	125	73	1	1	....	63	.....	....	....	....	....	....	....	yes
Ironton	132	132	69	1	1	....	66	.....	....	....	....	....	....	....	yes
Ithaca	571	281	247	1	4	....	56	1-20	....	....	....	....	....	....	....
Jackson, No. 1	2,243	1,469	1,326	4	35	....	37	all	31	5	9	24	....	....	....
Jackson, No. 17	1,602	900	834	1	20	....	43	1-2	....	....	....	4	....	....	....
Jonesville	288	184	170	2	4	....	31	1-6	9	....	....	4	....	....	....
Kalamazoo	2,910	1,883	1,775	2	49	1	36	all	45	12	15	12	yes	....	yes
Kalkaska	212	153	104	1	3	....	39	.....	....	....	....	....	yes	yes	yes
Lake Linden	669	547	481	2	10	1	42	1-3	18	1	....	2	yes	....	yes
Lakeside	553	292	195	1	4	....	40	.....	....	....	....	....	....	....	....
L'Anse	296	213	174	1	4	....	42	1-20	....	....	....	....	....	....	....
Lansing	2,596	1,274	1,222	4	30	....	37	all	19	....	....	14	....	....	....
Lawrence	217	203	194	1	3	1	40	1-4	....	....	....	....	....	....	yes
Lawton	191	163	56	1	2	....	53	.....	....	....	....	....	....	....	....
Leland	90	86	62	1	1	....	43	.....	....	....	....	....	....	....	....
Lisbon	96	69	60	1	1	....	34	.....	....	....	....	....	....	....	yes
Litchfield	195	150	138	1	3	....	37	1-6	....	....	....	....	....	....	yes
Lowell	630	465	411	2	7	....	51	1-10	4	....	4	4	....	yes	yes
Ludington	1,327	832	765	2	16	....	46	1-2	27	....	....	6	....	....	....

TABLE XVII.—*Continued.*

Districts.	Total Enrollment.	Av. No. Belonging.	Av. Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Number of Special Teachers.	Av. No. of Pupils to each Teacher.	Portion of Superintendent's time given to supervision.	Number of Pupils studying— Latin.	Greek.	French.	German.	Is Special Instruction given in— Vocal Music?	Drawing?	Penmanship?
Mancelona	349	255	162	2	4	....	43	.....	....	....	....	1	....	....	....
Manistee	1,825	1,037	999	2	26	1	38	all	28	....	....	....	....	yes	yes
Manton	140	.....	79	1	1	....	....	.....	....	....	....	....	....	....	....
Marine City	362	.....	205	6	....	....	....	1-2	....	....	....	....	....	yes	yes
Mariette	278	203	167	1	2	....	67	.....	....	....	....	....	....	....	yes
Marshall	810	581	546	1	20	....	27	2-3	7	....	....	7	....	....	yes
Mason	542	351	327	1	9	....	35	3-8	19	....	....	6	....	....	....
McBride's	222	144	115	1	2	....	48	.....	....	....	....	....	....	yes	yes
Mecosta	173	125	100	1	2	....	41	.....	....	....	....	....	yes	....	....
Memphis	246	155	134	1	2	....	51	.....	....	....	....	....	....	....	....
Mendon	255	195	164	1	4	....	39	1-5	....	....	....	5	....	....	....
Michigamme	313	.....	200	1	3	....	....	.....	....	....	....	....	....	....	yes
Midland	560	318	282	1	7	1	35	1-5	13	....	....	10	yes	....	....
Midland, No. 6	151	.....	64	1	1	1	....	.....	....	....	....	....	yes	....	....
Milford	394	283	240	3	3	1	47	1-6	....	....	....	....	....	....	yes
Millington	197	152	109	1	1	....	76	.....	....	....	....	....	yes	....	yes
Monroe	585	440	385	1	9	....	44	1-6	23	....	....	2	....	....	....
Morley	61	.....	61	1	1	....	....	1-60	....	....	....	....	....	....	....
Mount Clemens	709	465	431	1	9	....	46	1-3	5	....	....	....	....	....	yes
Mount Morris	130	94	82	1	1	....	47	.....	....	....	....	....	....	....	yes
Napoleon	146	.....	102	1	2	....	....	1-4	....	....	....	....	....	....	yes
Nashville	164	157	132	1	3	....	39	.....	5	....	....	....	....	....	....
Negaunee	757	713	436	1	10	....	39	1-2	11	....	....	....	....	....	yes
New Groningen	80	45	40	1	1	....	23	.....	....	....	....	....	....	....	yes
New Haven	224	129	129	1	2	....	43	.....	2	....	....	....	yes	yes	yes
Niles	975	680	611	2	18	....	35	5-6	16	....	....	8	....	....	....
Northville	225	218	206	1	4	....	44	.....	7	....	6	4	....	yes	....
Norway	506	376	261	1	5	....	62	1-2	....	....	....	....	....	....	....
Nunica	189	140	68	2	1	....	46	.....	....	....	....	....	....	....	yes
Okemos	118	80	69	2	....	....	40	.....	....	....	....	....	....	....	....
Opechee	271	216	189	1	3	....	54	1-20	....	....	....	....	....	yes	yes
Ortonville	149	115	92	1	1	....	57	1-2	....	....	....	....	....	yes	yes
Oscoda	407	328	225	2	4	....	54	.....	....	....	....	....	....	....	....
Osseo	118	83	65	1	1	....	41	.....	....	....	....	....	....	....	....
Otsego	384	287	255	1	6	....	41	1-60	....	....	....	....	....	....	yes
Otter Lake	157	120	104	....	2	....	60	1-6	....	....	....	....	....	....	....
Ovid	655	342	300	1	7	....	43	1-5	10	....	....	....	....	....	yes
Owosso	868	695	555	4	11	....	42	1-2	33	....	....	25	....	....	....
Oxford	334	184	148	1	4	....	37	1-10	....	....	....	....	....	....	....
Palmyra	120	90	62	1	1	....	45	.....	....	....	....	....	....	....	yes
Parma	263	219	177	2	2	1	44	.....	6	....	....	....	....	....	yes
Paw Paw	378	266	252	1	8	....	29	1 6	18	....	4	7	....	....	yes
Phœnix	175	136	121	1	2	....	45	1-10	....	....	....	....	....	yes	yes
Pierson	92	68	61	1	1	....	34	.....	....	....	....	....	....	....	....
Plainwell	374	280	253	1	7	....	35	.....	6	....	....	....	yes	....	....
Pontiac	1,090	763	705	3	18	....	36	1-2	42	....	6	16	....	....	....
Port Austin	180	142	91	1	2	....	47	.....	....	....	....	....	....	....	....
Port Hope	130	130	101	1	1	....	65	.....	....	....	....	....	....	yes	....
Port Huron	1,983	1,486	....	2	26	....	53	3-4	....	....	....	....	....	....	....
Portland	548	392	88	2	8	....	36	1-6	4	....	....	....	yes	....	....
Port Sanilac	195	165	125	1	1	....	82	.....	....	....	....	....	....	yes	yes
Quincy Mine	268	162	129	1	3	....	40	1-15	....	....	....	....	....	yes	yes
Reed City	500	376	329	1	6	....	53	1-60	....	....	....	....	....	....	....
Republic	508	370	292	1	5	....	61	.....	....	....	....	....	....	....	....
Rochester	243	172	140	1	3	....	42	.....	5	....	....	20	....	....	....
Rockford	245	142	119	2	2	....	35	1-20	2	....	....	....	....	....	....
Rockland	251	.....	175	2	3	....	....	1-10	....	....	....	8	yes	....	yes
Romeo	435	331	316	3	5	....	41	1-3	42	3	8	21	....	....	....
Roscommon	121	.....	91	....	2	....	....	.....	....	....	....	....	yes	....	yes
Royal Oak	138	98	63	....	2	....	46	.....	....	....	....	....	....	....	yes

TABLE XVII.—*Continued.*

Districts.	Total Enrollment.	Av. No. Belonging.	Av. Daily Attendance.	No. of Men Teachers.	No. of Women Teachers.	No. of Special Teachers.	Av. No. of Pupils to each Teacher.	Portion of Superintendent's time given to supervision.	Number of Pupils Studying—				Is Special Instruction given in—		
									Latin.	Greek.	French.	German.	Vocal Music?	Drawing?	Penmanship?
Saginaw	2,515	1,664	1,564	4	33	....	45	all	25	....	5	500	yes	yes	....
St. Charles	192	168	149	1	2	....	56	1-90	....	....	....	....	....	....	....
St. Clair	567	361	326	1	12	....	27	2-5	9	....	8	....	....	yes	....
St. Ignace	485	366	335	3	5	....	46	.....	....	....	....	....	....	....	yes
St. Johns	695	475	438	1	12	....	36	1-2	18	....	....	10	yes	....	....
St. Joseph	731	517	427	2	11	....	39	3-4	4	....	....	....	....	....	....
St. Louis	761	566	455	1	9	....	56	1-2	....	....	....	....	....	....	....
Saline	244	190	178	1	5	....	31	1-6	12	....	....	13	....	....	....
Salt River	113	100	85	1	1	....	50	.....	....	....	....	....	....	....	....
Sand Beach	275	166	138	1	3	....	41	.....	....	....	....	....	....	....	....
Sand Lake	184	184	141	1	2	....	61	.....	....	....	....	....	yes	yes	yes
Sanilac, No. 2	142	126	68	1	1	....	63	.....	....	....	....	....	yes	yes	yes
Saranac	186	186	159	2	2	....	46	.....	....	....	....	....	....	....	yes
Sault Ste. Marie	346	263	241	1	3	1	65	.....	....	....	....	....	....	....	....
Schoolcraft	334	244	229	1	5	....	40	1-10	7	....	....	....	....	....	....
South Haven	381	312	283	1	6	....	44	1-50	....	....	....	....	....	....	....
Sparta Center	187	130	118	....	3	....	43	1-40	....	....	....	....	....	yes	yes
Springport	278	133	87	1	2	....	44	.....	....	....	....	....	....	....	yes
Springwells	490	305	305	1	5	....	50	1-10	....	....	....	....	....	yes	yes
Stanton	634	421	313	1	8	....	46	1-3	8	....	....	....	....	....	....
Sturgis	577	404	346	1	9	....	40	1-2	....	....	....	....	yes	yes	yes
Tawas City	295	182	150	1	2	....	60	1-20	....	....	....	....	....	....	....
Tekonsha	159	.....	129	....	....	....	....	.....	....	....	....	....	....	....	yes
Thornville	90	84	72	1	1	....	42	.....	....	....	....	....	....	....	yes
Three Oaks	212	212	152	1	3	....	52	.....	....	....	....	....	....	....	....
Three Rivers	457	322	293	1	9	....	32	1-3	14	....	1	19	yes	yes	yes
Three Rivers, No. 4	322	255	219	1	4	....	51	.....	....	....	....	....	yes	....	yes
Trenton	304	267	185	1	2	....	89	.....	....	....	....	....	....	....	yes
Union City	447	318	294	1	7	....	39	1-5	18	7	....	10	....	....	....
Unionville	203	203	105	1	1	....	51	.....	....	....	....	....	yes	yes	yes
Vandalia	150	128	110	1	3	....	32	.....	8	....	....	....	....	....	....
Vassar	609	313	267	1	7	....	36	1-6	10	....	....	8	....	yes	yes
Vernon	209	174	135	1	2	....	58	.....	3	....	....	....	....	....	yes
Vicksburg	283	194	171	1	4	....	38	.....	....	....	....	14	....	....	....
Vriesland	132	201	85	1	1	....	50	1-12	....	....	....	....	yes	yes	yes
Wacousta	86	76	53	1	1	....	38	.....	....	....	....	....	....	....	yes
Waldron	106	63	.....	1	1	....	31	.....	1	....	....	....	....	....	....
Washington	101	57	51	1	1	....	28	.....	....	....	....	....	....	....	....
Watervliet	127	84	76	1	1	....	42	.....	....	....	....	....	....	....	....
Webberville	190	130	105	1	2	....	43	.....	....	....	....	....	....	....	....
West Bay City, No. 1	606	606	336	1	6	....	86	1-5	....	....	....	....	....	....	yes
West Branch	164	101	66	1	1	....	50	.....	....	....	....	....	....	....	....
White Cloud	128	76	60	1	1	....	38	.....	....	....	....	....	....	....	yes
Whitehall	590	312	292	1	6	....	44	1-4	....	....	....	....	....	yes	yes
Williamston	290	275	226	1	5	....	45	1-5	....	....	....	....	....	....	yes
Wyandotte	765	592	561	2	11	....	45	1-3	14	....	....	....	....	....	....
Ypsilanti	1,027	736	680	5	15	1	35	1-2	50	4	....	16	yes	....	....

TABLE XVIII.

Statistics of the High-School Department of Sixty Graded School Districts Compiled from Reports of Superintendents and Principals for the School Year 1883-4.

Districts.	Enrollment in Department.	Average Number belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Ave. No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Average Age of Class Graduated. Years.	Average Age of Class Graduated. Months.	Cost Per Capita for Instruction.	Cost Per Capita for Incidentals.	Total Cost Per Capita.
Adrian	153	123	117	1½	3	39	21	18	....	$26 31	$6 39	$32 70
Alpena	42	33	31	1¼	¼	22	.....	21	....	33 33	4 81	38 14
Ann Arbor	491	366	352	5	5	36	266	18	10	25 63	4 22	29 85
Battle Creek	172	124	124	3	2	25	66	....	....	26 77	3 38	30 15
Big Rapids	68	36	34	1	2	12	10	....	....	31 94	6 50	38 44
Brighton	79	43	39	1	.....	43	30	16	....	21 25	2 57	23 82
Capac	69	45	42	1	.....	45	20	16	8	12 08	2 15	14 23
Caro	110	58	53	1	1	29	27	19	....	18 96	5 71	24 67
Charlotte	150	96	85	.....	3½	32	62	19	....	3 15	47	3 62
Chelsea	65	42	45	1	1	24	23	18	....	18 70	1 07	19 77
Detroit	743	538	520	7	16	23	.....	19	....	34 00	5 95	39 95
Dowagiac	95	56	53	1	2	15	22	16	....	24 18	3 11	27 29
East Saginaw	235	195	192	1	5	34	12	18	1	25 68	4 42	30 10
East Tawas	48	30	27	1	.....	30	2	17	....	26 31	3 48	29 79
Eaton Rapids	109	66	62	1	1½	33	37	17	....	12 54	1 05	13 59
Evart	72	43	39	1	.....	43	9	....	....	17 44	3 39	20 83
Fenton	103	66	62	2	1	33	.....	....	....	26 48	4 07	30 55
Flint	275	179	174	2	5	25	84	18	10	19 72	4 38	24 10
Gaylord	67	40	35	1	.....	40	7	....	....	13 50	1 67	15 17
Grand Haven	48	36	34	1	2	12	2	20	....	32 33	3 73	36 06
Grand Rapids	504	357	340	4 5 12	7½	33	60	17	6	33 56	9 57	43 13
Hancock	47	42	41	1	1	21	13	14	....	5 95	1 89	7 84
Hastings	274	173	161	3	2	34	164	18	....	9 44	3 66	13 10
Hillsdale	138	120	104	1	2	40	.....	18	....	16 95	6 36	23 31
Holland	48	38	37	.....	1	38	8	17	....	15 96	2 42	18 38
Houghton	65	59	56	3-5	1	29	9	17	....	30 08	7 60	37 68
Ithaca	156	68	51	1	.....	68	78	19	....	13 47	12 48	25 95
Jackson, No. 1	108	84	78	1	2	28	11	....	....	31 58	3 81	35 39
Jackson, No. 17	39	31	28	½	1	31	.....	18	....	.....	2 93	.....
Kalamazoo	151	140	134	1½	5	23	11	19	8	25 23	3 25	28 48
Lansing	120	94	91	2	2	23	18	....	....	20 07	8 14	28 21
Lawton	46	37	37	1	.....	37	11	17	....	14 00	3 33	17 33
Lowell	130	85	76	1	1	42	20	17	....	13 76	2 46	16 22
Ludington	53	38	36	1	1	19	7	....	....	34 93	3 31	38 24
Manistee	71	53	52	½	3	17	1	17	2	34 58	4 45	39 03
Marshall	77	51	48	½	3	17	22	19	....	40 16	3 88	44 04
Mason	105	69	63	.....	1½	66	48	17	....	17 11	2 41	19 52
Monroe City	55	46	44	67	1½	24	15	....	....	.....	3 54	.....
Mount Clemens	41	29	28	1	½	29	8	18	....	26 84	3 87	30 71
Niles	102	82	77	2	3	16	40	18	2	20 83	9 62	30 45
Northville	64	61	57	1	1	30	25	16	....	20 67	1 85	22 52
Ovid	127	67	60	1	1	38	56	17	....	15 15	2 86	18 01
Owosso	78	55	54	2	1	18	26	18	2	32 81	6 68	39 49
Oxford	110	59	56	1	1	29	12	....	....	8 39	2 67	11 06
Paw Paw	67	41	39	1	3	10	.....	....	....	24 62	3 66	28 28
Quincy Mine	50	34	27	1	.....	34	2	....	....	24 70	5 55	30 25
Rochester	91	63	55	1	1	31	15	....	....	17 73	3 48	21 21
Romeo	80	64	62	1	1	32	17	....	....	22 40	4 30	26 70
Saginaw	124	93	88	1	2½	31	12	18	....	26 91	3 12	30 03
St. Johns	85	66	62	1	2	22	22	18	7	19 76	2 34	22 10
St. Joseph	115	87	75	1	3	21	11	17	8	13 76	13 29	27 05
St. Louis	50	41	40	1	1	20	12	17	....	17 50	1 40	18 90
Stanton	74	50	41	1	1	25	5	18	....	20 00	2 70	22 70
Sturgis	121	79	74	½	2	39	30	18	....	19 94	5 58	25 52
Trenton	65	61	42	1	.....	61	.....	....	....	8 19	92	9 11
Union City	112	77	72	1 4-5	1½	28	41	19	....	20 00	2 58	22 58
Vassar	115	58	55	1	1	29	25	17	....	34 38	2 85	37 23
Whitehall	50	30	29	1	.....	30	6	17	2	25 00	4 72	29 72
Wyandotte	54	44	42	½	1	22	12	17	....	26 50	2 03	28 53
Ypsilanti	120	94	90	3	2	19	17	....	....	35 50	5 81	41 31

TABLE XIX.

Statistics of the Grammar Department of Sixty Graded School Districts, Compiled from Reports of Superintendents and Principals for the School Year 1883-4

Districts.	Enrollment in Department.	Average Number Belonging.	Average Daily Attendance.	Number of Men Teachers.	Number of Women Teachers.	Average No. of Pupils to each Teacher.	No. of Non-Resident Pupils.	Average Age of Class Graduated. Years.	Average Age of Class Graduated. Months.	Cost Per Capita for Instruction.	Cost per Capita for Incidentals.	Total Cost per Capita.
Adrian	426	339	314	5-12	11	30	10	14	....	$15 00	$6 39	$21 39
Alpena	315	190	179	.....	4¾	47	.....	15	5	12 63	4 81	17 44
Ann Arbor	536	480	461	8-10	12	40	53	14	....	13 10	4 22	17 32
Battle Creek	769	408	380	.....	13	30	30	....	....	12 69	3 38	16 07
Big Rapids	421	2 0	177	.....	5	40	5	....	....	10 63	6 50	17 13
Brighton	76	54	50	.....	2	27	4	12	....	11 21	2 57	13 78
Capac	70	43	35	.....	1	44	.....	....	....	5 11	2 15	7 26
Caro	111	95	89	.....	2	47	1	14	....	7 91	5 71	13 62
Charlotte	329	228	215	.....	4 7-10	45	8	14	....	2 15	47	6 62
Chelsea	93	83	76	.....	2	41	11	13	....	41 00	7 09	48 09
Detroit	7,523	3,687	3,466	5	103	341	.....	14	2	17 16	5 95	23 11
Dowagiac	109	102	96	2	1	34	6	12	7	11 58	3 11	14 69
East Saginaw	1,032	835	796	2	19	39	15	13	7	13 25	4 42	17 67
East Tawas	60	44	40	.....	1	44	.....	15	....	8 32	3 48	11 80
Eaton Rapids	161	109	100	.....	2½	54	9	14	1	7 32	64	7 96
Evart	107	58	52	.....	2	29	.....	....	....	12 41	3 39	15 80
Fenton	231	161	147	.....	4	40	8	....	....	10 17	4 07	14 24
Flint	917	593	557	1	14	39	31	14	7	10 08	4 38	14 46
Gaylord	67	42	37	.....	1	42	1	10	....	7 50	1 67	9 17
Grand Haven	330	222	211	5	21	85	3	15	....	12 54	3 73	16 27
Grand Rapids	2,671	1,600	1,535	2	35	43	53	14	2	12 86	9 57	22 43
Hancock	191	129	122	1	2	43	15	12	....	4 02	1 97	5 99
Hastings	273	214	200	4	4	26	12	14	....	6 46	3 66	10 12
Hillsdale	291	254	249	.....	5	50	.....	14	....	6 46	6 36	12 82
Holland	249	192	178	.....	5	38	7	13	....	7 87	2 42	10 29
Houghton	74	63	59	1-10	2	31	7	13	....	22 42	7 60	30 02
Ithaca	207	103	100	.....	2	51	5	14	11	3 03	8 24	11 27
Jackson, No. 1	789	601	554	2	13	40	32	....	....	12 36	3 81	16 17
Jackson, No. 17	435	223	209	.....	7½	32	.....	15	....	29 07	2 95	32 02
Kalamazoo	747	509	487	½	15	34	8	15	7	13 60	3 25	16 85
Lansing	950	432	431	2	9	39	26	....	....	11 34	8 14	19 48
Lawton	65	56	57	.....	1	56	1	14	....	4 20	3 33	7 53
Lowell	232	165	152	1	2	55	8	13	....	6 78	2 46	9 24
Ludington	214	158	144	½	4	32	12	14	....	12 42	3 31	15 73
Manistee	367	229	221	½	6¾	32	7	14	3	15 39	4 45	19 84
Marshall	258	202	192	½	8	25	13	15	....	14 71	3 88	18 59
Mason	130	96	92	.....	2	48	5	14	....	8 06	2 41	10 47
Monroe City	178	138	130	.....	2½	60	.....	20	..	.....	3 54	.....
Mount Clemens	249	166	152	.....	3¾	55	8	14	10	8 31	3 87	12 18
Niles	195	137	126	1	4	27	4	13	8	12 32	9 62	21 94
Northville	47	45	40	.....	1	45	7	12	6	7 11	1 85	8 96
Ovid	170	75	65	.....	2	37	4	....	....	10 28	2 86	13 14
Owosso	205	190	177	1	4	38	10	14	....	11 62	6 68	18 30
Oxford	74	40	38	.....	1	40	1	....	....	8 39	2 67	11 06
Paw Paw	147	111	106	.....	2½	55	7	....	....	9 62	3 66	13 28
Quincy Mine	50	32	23	.....	1	32	1	....	....	14 69	5 55	20 24
Rochester	55	37	31	.....	1	37	2	11	....	8 65	3 48	12 13
Romeo	123	108	104	2	.....	54	.....	....	....	7 81	4 30	12 11
Saginaw	566	400	369	1	10½	36	10	14	6	12 96	3 12	16 08
St. Johns	180	158	125	.....	3	46	11	14	6	9 94	2 34	12 28
St. Joseph	288	233	181	.....	5	42	6	14	1	6 19	13 20	19 43
St. Louis	197	125	105	.....	2	62	10	14	....	10 97	1 40	12 37
Stanton	114	74	62	.....	2	37	2	13	....	11 75	2 70	14 45
Sturgis	181	143	97	¼	3	47	25	14	....	8 86	5 38	14 24
Trenton	113	99	76	.....	1	99	.....	.....	.....	2 93	92	3 87
Union City	118	113	104	.....	2½	57	5	15	....	9 07	2 58	11 65
Vassar	240	133	108	.....	4	33	2	12	....	17 42	2 85	20 27
Whitehall	131	84	78	.....	2	42	5	13	8	10 57	4 72	15 29
Wyandotte	177	145	139	1	2	48	2	14	....	9 43	2 03	11 46
Ypsilanti	294	228	211	.....	5	45	17	....	....	12 11	5 81	17 92

TABLE XX.

Statistics of the Primary Department in Sixty Graded School Districts, Compiled from Reports of Superintendents and Principals for the School Year 1883-4.

Districts.	Enrollment in Department.	Average number belonging.	Average Daily Attendance.	Number of men Teachers.	Number of women Teachers.	Av. No. of Pupils to each Teacher	Number of Non-resident Pupils.	Average age of Class Promoted.		Cost per capita for Instruction.	Cost per capita for Incidentals.	Total cost per capita.
								Years.	Months.			
Adrian	943	584	538	1-12	14	41	.....	10	.....	$9 35	$6 39	$15 74
Alpena	1,228	615	559	.....	12	51	.....	10	9	8 36	4 81	13 17
Ann Arbor	911	715	687	1-10	15	47	61	10	.....	8 66	4 22	12 88
Battle Creek	974	698	621	.....	14	49	5	.....	.....	8 44	3 38	11 82
Big Rapids	771	523	450	.....	11	47	9	.....	.....	9 53	6 50	16 03
Brighton	130	83	73	.....	2	41	1	9	.....	6 51	2 52	9 03
Capac	100	61	52	.....	1	61	.....	.....	.....	4 04	2 15	6 19
Caro	225	158	136	.....	3	52	3	10	.....	6 09	5 71	11 80
Charlotte	594	335	313	.....	8	42	8	10	8	2 07	47	2 54
Chelsea	222	147	132	.....	3½	49	2	11	.....	6 32	1 07	7 39
Detroit	18,286	9,112	8,462	1	163	55	.....	10	4	10 53	5 95	16 48
Dowagiac	329	226	212	.....	5	45	.....	8	7	7 00	3 11	10 11
East Saginaw	2,977	2,030	1,924	.....	41	49	6	9	7	11 12	4 42	15 54
East Tawas	3.9	202	180	.....	3	67	.....	13	.....	6 09	3 48	15 57
Eaton Rapids	312	195	176	.....	4	48	2	10	5	7 13	36	7 49
Evart	211	117	103	.....	2	58	.....	.....	.....	6 15	3 39	9 54
Fenton	274	169	151	.....	4	42	.....	.....	.....	8 30	4 07	12 37
Flint	1,215	687	631	.....	16	43	4	10	10	7 88	4 38	12 26
Gaylord	62	38	31	.....	1	38	.....	6	.....	8 21	1 67	9 88
Grand Haven	1,157	752	703	1	14	53	7	11	.....	8 39	3 73	12 12
Grand Rapids	7,553	3,554	3,365	1½	88½	40	54	10	6	11 07	9 57	20 64
Hancock	292	225	214	.....	3	74	12	9	.....	1 11	1 89	3 00
Hastings	358	298	281	.....	6	49	4	10	3	6 66	3 66	10 32
Hillsdale	336	300	280	.....	5	60	.....	10	.....	5 91	6 36	12 27
Holland	690	407	382	.....	6	67	4	10	.....	5 80	2 42	8 22
Houghton	614	455	419	1 3-10	8	50	2	11	6	10 71	7 60	18 31
Ithaca	208	110	96	.....	2	55	.....	10	6	2 83	7 72	10 55
Jackson, No. 1	1,346	784	694	.....	20	39	21	.....	.....	10 39	3 81	14 20
Jackson, No. 17	1,132	646	599	.....	11½	58	.....	11	.....	9 21	2 95	12 16
Kalamazoo	2,012	1,234	1,154	½	29	42	2	11	4	9 10	3 25	12 35
Lansing	1,576	748	699	.....	19	34	17	.....	.....	11 44	8 14	19 58
Lawton	80	70	70	.....	1	72	1	11	.....	4 20	3 33	7 53
Lowell	260	215	183	.....	4	54	.....	9	.....	5 39	2 46	7 85
Ludington	1,060	636	585	½	11	57	6	10	.....	8 27	3 31	11 58
Manistee	1,387	754	725	1	16	47	4	11	4	11 86	4 45	16 31
Marshall	475	328	306	½	9	36	13	10	.....	9 67	3 88	13 55
Mason	317	189	172	.....	5½	37	.....	12	.....	8 00	2 41	10 41
Monroe City	352	256	211	.....	5	51	5	.....	.....	.....	3 54	.....
Mt. Clemens	419	274	251	.....	5	54	2	10	9	6 19	3 87	10 06
Niles	678	462	408	1	11	46	.....	9	7	9 02	9 62	18 64
Northville	114	112	109	.....	2	55	1	9	.....	4 28	1 85	6 13
Ovid	358	200	175	.....	4	50	.....	.....	.....	6 75	2 86	9 61
Owosso	525	360	324	1	6	51	.....	10	9	6 60	6 68	12 68
Oxford	150	85	64	.....	2	42	2	.....	.....	8 39	2 67	11 06
Paw Paw	164	112	107	.....	2½	86	1	.....	.....	8 49	3 66	12 15
Quincy Mine	168	96	79	.....	2	48	.....	.....	.....	9 79	5 55	15 34
Rochester	97	72	54	.....	1	72	.....	9	6	3 47	3 78	7 25
Romeo	226	150	150	.....	4	39	.....	.....	.....	8 09	4 30	12 39
Saginaw	1,825	1,171	1,116	1	21	55	3	11	.....	7 88	3 12	11 00
St. Johns	430	271	248	.....	7	30	5	11	7	10 41	2 34	12 75
St. Joseph	328	261	171	1	3	72	4	8	.....	7 08	13 29	20 36
St. Louis	514	400	310	.....	6	66	4	10	.....	5 81	1 40	7 21
Stanton	446	297	210	.....	5	59	.....	.....	.....	6 16	2 70	8 86
Sturgis	273	182	175	¼	4	45	10	10	.....	9 47	5 38	14 85
Trenton	126	107	64	.....	1	107	.....	.....	.....	2 80	92	3 72
Union City	187	128	118	.....	3	42	6	10	.....	9 74	2 58	12 32
Vassar	254	122	104	.....	2	61	.....	9	.....	17 72	2 85	20 57
White Hall	409	198	186	.....	4	49	4	10	10	8 18	4 72	12 90
Wyandotte	534	403	380	.....	8	50	.....	11	.....	6 70	2 03	8 73
Ypsilanti	613	414	379	2	8	41	1	.....	.....	10 93	5 81	16 74

TABLE XXI.

Receipts and Expenditures at Teachers' Institutes for the Calendar Year 1884.

Counties.	Locations.	Dates.	Receipts.		Disbursements.			
			County Fund.	State Fund.	Compensation of Instructors.	Expenses of Instructors.	Other Exp'nses.	Total.
Totals			$8,000 35	$1,800 00	$6,126 69	$1,921 48	$1,752 18	$9,800 35
Allegan	Wayland	Apr. 7-11	$147 45		$95 00	$20 70	$31 75	$147 45
Alpena	Alpena	Aug. 25-29	33 00	$60 00	56 76	20 40	15 84	93 00
Antrim	Elk Rapids	Aug. 18-22	68 00	50 00	72 56	27 00	18 44	118 00
Baraga	L'Anse	Oct. 6-10	14 00	60 00	33 18	38 32	2 50	74 00
Barry	Hastings	Aug. 25-29	152 35		90 00	34 50	27 85	152 35
Bay / Arenac	Pinconning	Mar. 31-Apr. 4	60 00 / 6 00	60 00	90 00	19 00	17 00	126 00
Benzie	Frankfort	Aug. 11-15	53 50	60 00	74 80	23 70	15 00	113 50
Berrien	Buchanan	Aug. 11-15	160 00		90 00	34 00	36 00	160 00
Branch	Coldwater	Aug. 25-29	178 62		110 00	30 63	37 99	178 62
Calhoun	Marshall	Mar. 17-28	338 75		230 00	51 85	56 90	338 75
Cass	Dowagiac	Nov. 10-14	154 50		90 00	21 80	42 70	154 50
Charlevoix	Boyne City	July 21-25	54 00	60 00	70 99	27 13	15 88	114 00
Cheboygan	Cheboygan	Aug. 11-15	38 50	60 00	51 70	33 85	12 95	98 50
Chippewa	Sault Ste. Marie	May 19-23	20 50	60 00	32 00	40 30	8 20	80 50
Clare	Clare	Aug. 4-8	20 50	60 00	52 65	18 95	8 90	80 50
Clinton	St. Johns	Aug. 25-29	155 90		96 00	24 75	35 15	155 90
Delta	Escanaba	Aug. 25 29	12 50	60 00	44 26	18 19	10 05	72 50
Eaton	Charlotte	Aug. 25 29	156 00		90 00	34 00	32 00	156 00
Emmet	Petoskey	Aug. 25 29	68 00	40 00	73 24	13 60	21 16	108 00
Genesee	Flint	Aug. 25-29	161 00		100 00	21 70	39 30	161 00
Gladwin	Gladwin	Aug. 4-8	30 50	60 00	62 30	22 15	6 05	90 50
G. Traverse	Traverse City	Aug. 25-29	58 50	60 00	81 61	22 12	14 77	118 50
Gratiot	St. Louis	Aug. 25-29	136 63		85 00	23 88	27 75	136 63
Hillsdale	Hillsdale	Aug. 25-29	204 40		110 00	34 60	59 80	204 40
Huron	Bad Axe	Aug. 18 22	92 00	20 00	71 00	20 85	20 15	112 00
Ingham	Mason	July 28-Aug. 8	263 00		205 27	29 40	28 33	263 00
Ionia	Ionia	Oct. 27-31	148 25		90 00	15 25	43 00	148 25
Iosco	AuSable	Sept. 29-Oct. 3	23 50	60 00	50 00	24 50	9 00	83 50
Isabella	Mt. Pleasant	Aug. 18-22	95 50	35 00	89 50	24 55	16 45	130 50
Jackson	Hanover	Aug. 18-29	283 00		200 00	31 30	51 70	283 00
Kalamazoo	Kalamazoo	Aug. 18-23	269 70		175 20	47 75	46 75	269 70
Kalkaska	Kalkaska	Aug. 18-22	48 00	52 00	85 00	8 95	6 05	100 00
Kent	Cedar Springs	Mar. 31-Apr. 11	357 80		245 00	69 85	42 95	357 80
Lake	Luther	Oct. 6-10	54 00	58 90	90 00	17 40	5 50	112 90
Lapeer	Lapeer	April 7-11	163 25		90 00	30 40	42 85	163 25
Leelanaw	Leland	Aug. 18-22	52 00	60 00	66 25	33 65	12 10	112 00
Lenawee	Adrian	Aug. 4-15	322 37		200 15	54 25	67 97	322 37
Livingston	Brighton	Aug. 18-22	145 60		90 00	23 95	31 65	145 60
Mackinac	St. Ignace	May 26-30	39 00	60 00	50 65	38 35	10 00	99 00
Macomb	Richmond	Aug. 25-29	116 00	24 50	90 00	25 25	25 25	140 50
Manistee	Bear Lake	April 14-18	44 00	60 00	70 30	14 70	19 00	104 00
Mason	Ludington	Aug. 25-29	43 50	60 00	52 17	34 38	16 95	103 50
Mecosta	Big Rapids	Aug. 25-29	96 50	25 00	68 11	31 65	21 74	121 50
Menominee	Menominee	Aug. 25-29	38 00	60 00	28 75	56 05	13 20	98 00
Midland	Midland	Aug. 18-22	57 50	55 05	77 05	16 30	19 20	112 55
Missaukee	Lake City	April 21-25	41 00	60 00	71 00	16 80	13 20	101 00
Monroe	Monroe	Aug. 25-29	155 00		90 00	40 15	24 85	155 00
Montcalm	Greenville	Aug. 11-15	134 40		90 00	8 15	36 25	134 40
Muskegon	Ravenna	Aug. 18-22	88 50	25 00	77 94	21 52	14 04	113 50
Newaygo	Newaygo	Oct. 27-31	84 50	25 00	67 05	22 40	20 05	109 50
Oakland	Milford	Aug. 18-29	285 80		195 00	38 10	52 70	285 80
Oceana	Pentwater	Oct. 13-17	96 00	20 00	77 40	20 70	17 90	116 00
Ogemaw	West Branch	Aug. 18-22	52 50	50 00	76 50	14 00	12 00	102 50
Osceola	Reed City	Oct. 20-24	88 50	20 00	61 20	27 90	19 40	108 50
Otsego	Gaylord	Aug. 11-15	42 50	60 00	59 40	30 18	12 92	102 50
Ottawa	Coopersville	Mar. 31-Apr. 4	169 20		90 00	36 45	42 75	169 20
Presque Isle	Rogers City	July 28-Aug. 1	21 50	60 00	34 75	38 50	8 25	81 50
Saginaw	East Saginaw	Aug. 25-29	197 75		120 00	45 75	32 00	197 75
St. Clair	Port Huron	Aug. 25-29	138 30		85 00	32 65	20 65	138 30
St. Joseph	Mendon	Aug. 18-22	165 18		90 00	39 15	36 03	165 18
Sanilac	Lexington	Mar. 31-Apr. 4	143 50		90 00	24 75	28 75	143 50
Schoolcraft	Manistique	Sept. 29-Oct. 3	24 75	60 00	55 00	20 33	9 42	84 75
Shiawassee	Bancroft	Oct. 20-24	147 25		90 00	24 50	32 75	147 25
Tuscola	Vassar	Aug 25-29	138 50		85 00	19 00	34 50	138 50
Van Buren	South Haven	Aug. 11-15	138 20		90 00	14 60	33 60	138 20
Washtenaw	Dexter	Aug. 18-22	192 25		90 00	50 75	51 50	192 25
Wayne	Northville	Aug. 25-29	155 20		90 00	24 35	40 85	155 20
Wexford	Manton	Mar. 31-Apr. 4	64 50	39 55	85 00	4 95	14 10	104 05

TABLE XXII.

Local Committees, Conductors, and Instructors at Teachers' Institutes for the Calendar Year 1884.

Counties.	Local Committees.	Conductors.	Assistant Instructors.
Allegan	J. W. Humphrey	P. A. Latta	J. W. Humphrey, H. A. Walbrecht.
Alpena	E. L. Little	Wesley Sears	E. L. Little.
Antrim	C. E. Smith	C. L. Bemis	J. W. Ewing.
Baraga	E. L. Mason	P. A. Latta	F. N. Turner.
Barry	C. B. Hall	H. R. Pattengill	C. B. Hall.
Bay Arenac	S. R. Hoobler	H. R. Pattengill	C. B. Thomas.
Benzie	S. Mackibbin	R. W. Putnam	A. E. Haynes.
Berrien	J. F. Wray	Austin George	J. L. Lucas.
Branch	H. J. Coox	E. P. Church	H. J. Cook, M. D. Campbell.
Calhoun	G. P. Glenn	W. H. Payne	L. McLouth, Z. C. Spencer, Mrs. Kate B. Ford.
Cass	J. W. Simmons	H. R. Pattengill	J. W. Simmons.
Charlevoix	R. L. Corbett	A. E. Haynes	C. W. Pickell.
Cheboygan	W. L. Barr	D. Putnam	E. L. Little.
Chippewa	G. L. Trempe	N. H. Walbridge	D. E. Haskins.
Clare	D. E. Alward	A. E. Haynes	C. W. Pickell.
Clinton	W. H. Brunson	D. Howell	S. W. Baker, Edwin Willits.
Delta	W. H. Tibbals	W. J. Cox	W. H. Tibbals
Eaton	Chas. McKenney	O. D. Thompson	J. W. Humphrey.
Emmet	J. T. Ewing	J. W. Ewing	J. T. Ewing.
Genesee	I. W. Barnhart	D. Putnam	M. T. Gass, Edwin Willits, I. W. Barnhart.
Gladwin	F. L. Prindle	R. W. Putnam	H. M. Enos.
G'd Traverse	C. J. Kneeland	C. F. R. Bellows	H. M. Enos.
Gratiot	N. A. Richards	C. B. Thomas	G. A. Osinga.
Hillsdale	W. A. Drake	W. S. Perry	J. W. Simmons, S. G. Burkhead.
Huron	G. A. Maywood	Z. C. Spencer	G. A. Parker.
Ingham	H. F. Derr	H. R. Pattengill	D. Howell, Geo. Barnes.
Ionia	Chas. Moore	L. McLouth	J. W. Ewing.
Iosco	C. S. Pierce	N. H. Walbridge	S. B. Laird.
Isabella	L. C. Griffith	W. H. Payne	D. A. Hammond.
Jackson	A. E. Bibbins	J. Estabrook	D. E. Haskins, J. Montgomery.
Kalamazoo	H. N. French	Austin George	F. A. Barbour, J. S. Crombie, J. L. Lucas.
Kalkaska	A. G. Drake	E. P. Church	H. M. Enos.
Kent	I. F. Bangs	I. N. Demmon	N. H. Walbridge, E. B. Fairfield, John Goodison, Mrs. R. B. Ford.
Lake	L. B. Hall	H. M. Enos	H. C. Rankin.
Lapeer	Frank Millis	Austin George	N. H. Walbridge.
Leelanaw	Miss Kate Pickard	E. B. Fairfield	C. F. R. Bellows.
Lenawee	A. E. Curtis	Z. C. Spencer	A. E. Curtis, J. W. Simmons, W. W. Wendell, Edwin Willits.
Livingston	Lon Lee	O. D. Thompson	Wesley Sears.
Mackinac	Ambro Bettes	D. E. Haskins	N. H. Walbridge.
Macomb	A. E. Millett	R. W. Putnam	D. A. Hammond.
Manistee	Mrs. E. S. Hopkins	P. A. Latta	J. W. Humphrey.
Mason	S. N. Hill	P. A. Latta	W. D. Clizbe.
Macosta	P. M. Brown	J. G. Plowman	C. W. French.
Menominee	A. W. Bill	C. L. Bemis	J. G. Johnston.
Midland	L. S. Norton	D. Putnam	C. B. Hall.
Missaukee	A. Stout	N. H. Walbridge	G. S. Hicks.
Monroe	J. A. Stewart	N. H. Walbridge	J. R. Miller.
Montcalm	E. P. Church	J. G. Plowman	E. P. Church.
Muskegon	Miss Etta Reed	C. B. Thomas	J. W. Humphrey.
Newaygo	Tyson Smith	P. A. Latta	H. M. Enos.
Oakland	A. P. Cook	I. N. Demmon	T. S. Clark, C. Stanton.
Oceana	E. M. Stephenson	H. M. Enos	H. C. Rankin.
Ogemaw	John Jones	H. R. Pattengill	E. L. Little.
Osceola	A. B. Perrin	Austin George	N. H. Walbridge.
Otsego	Henry Whiteley	J. W. Ewing	C. L. Bemis.
Ottawa	A. W. Taylor	J. Estabrook	D. Howell.
Presque Isle	F. D. Larke	N. H. Walbridge	E. L. Little.
Saginaw	J. S. Goodman	J. S. Goodman	E. B. Fairfield, A. E. Haynes.
St. Clair	H. J. Robeson	Z. C. Spencer	E. M. Plunket.
St. Joseph	Fred Glafke, Jr.	W. S. Perry	R. W. Putnam.
Sanilac	C. E. Swift	O. D. Thompson	G. A. Parker.
Schoolcraft	O. B. Weed	P. A. Latta	O. B. Weed.
Shiawassee	F. D. Robison	H. R. Pattengill	I. N. Demmon.
Tuscola	E. A. Wilson	G. P. Glenn	E. A. Wilson.
Van Buren	L. C. Bishop	W. S. Perry	J. R. Miller.
Washtenaw	H. A. Williams	D. Howell	J. G. Plowman.
Wayne	W. H. Chever	J. S. Crombie	Geo. Barnes.
Wexford	G. S. Hicks	J. S. Crombie	G. S. Hicks.

TABLE XXIII.

Enrollment at Teachers' Institutes for the Calendar Year 1884.

Counties.	Whole number of Teachers required to supply the Schools.	Number Enrolled.			Kinds and Grades of Certificates held by Members.						No. without experience in Teaching.	No. having received Normal Instruction.	Average Attendance each half-day.
		Men.	Women.	Total.	State.	Normal.	First.	Second.	Third.	Special.			
Totals 68	9,128	1,702	4,659	6,361	25	85	241	521	3,709	143	1,613	1,706	61.8
Allegan	225	43	104	147	.....	.....	4	8	66	7	62	114	121.3
Alpena	56	10	40	50	.....	.....	3	12	28	1	7	22	33.8
Antrim	74	7	27	34	.....	.....	2	2	18	2	8	10	22.5
Baraga	13	3	18	21	.....	1	1	3	4	1	9	2	16
Barry	171	43	127	170	1	.....	7	20	100	1	46	88	113
Bay	125	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Arenac	21	7	40	47	.....	.....	2	10	29	1	14	11	31
Benzie	43	10	33	43	.....	.....	4	7	18	4	9	15	34
Berrien	213	36	99	135	.....	6	14	8	83	1	25	39	85.8
Branch	169	58	123	181	.....	1	4	35	82	2	38	25	127
Calhoun	241	37	150	187	.....	.....	13	19	103	5	47	25	113.5
Cass	140	21	79	100	1	5	2	1	50	1	27	45	68
Charlevoix	69	14	41	55	.....	.....	1	5	43	3	4	11	41.5
Cheboygan	54	9	35	44	.....	.....	5	8	29	3	10	8	30
Chippewa	33	9	13	22	.....	1	1	4	4	4	8	5	13.2
Clare	37	11	44	55	1	.....	2	4	16	.....	20	8	24.2
Clinton	190	52	100	152	.....	1	2	23	84	4	38	76	100
Delta	35	2	31	33	.....	.....	.....	2	19	1	13	10	30
Eaton	188	56	135	191	2	.....	8	9	143	.....	32	40	119.3
Emmet	68	15	53	68	.....	2	2	6	30	3	17	12	44
Genesee	223	50	135	185	.....	1	2	19	133	6	33	39	120.7
Gladwin	19	10	18	28	.....	.....	3	2	13	.....	10	5	21
Grand Traverse	71	27	57	84	.....	1	1	12	57	.....	19	42	63
Gratiot	140	36	55	91	2	1	6	5	54	1	21	16	62
Hillsdale	206	40	128	168	3	.....	4	16	104	3	32	53	106
Huron	113	13	26	39	.....	.....	1	2	29	.....	7	11	31.8
Ingham	194	45	127	172	.....	4	5	3	109	.....	51	34	135
Ionia	136	34	87	121	.....	1	3	3	91	2	25	45	87.1
Iosco	41	7	35	42	.....	5	5	6	17	1	8	10	24.4
Isabella	99	17	44	61	.....	.....	1	4	41	3	9	10	28
Jackson	238	53	125	178	.....	4	4	8	100	1	61	43	128
Kalamazoo	209	58	147	185	2	5	4	11	117	3	40	47	128.4
Kalkaska	36	11	28	39	.....	.....	1	3	20	7	6	5	24
Kent	391	25	75	100	.....	4	8	5	51	2	33	21	58
Lake	55	4	30	34	.....	.....	3	2	25	.....	4	8	25
Lapeer	169	18	61	79	1	1	3	2	51	1	24	14	55
Leelanaw	56	8	15	23	.....	.....	2	3	10	1	7	4	14.3
Lenawee	277	57	137	174	.....	2	2	7	128	2	39	55	128
Livingston	154	37	78	115	2	4	4	6	68	2	21	32	69.1
Mackinac	33	6	34	40	.....	2	3	2	6	5	12	6	27
Macomb	146	27	75	102	.....	1	2	8	74	.....	18	36	73.3
Manistee	83	15	33	48	.....	.....	.....	4	21	1	22	4	40.7
Mason	71	21	41	62	2	1	1	6	34	1	17	18	41.4
Mecosta	112	26	83	109	.....	3	2	14	56	6	22	62	55.6
Menominee	54	5	32	37	2	.....	6	3	17	1	8	12	26
Midland	63	7	48	55	.....	.....	3	3	30	7	11	7	45.1
Missaukee	36	10	26	36	.....	1	1	3	14	1	16	6	28
Monroe	157	42	95	137	1	1	2	24	93	.....	20	42	102
Montcalm	174	26	113	139	.....	2	8	10	66	10	40	9	91
Muskegon	164	17	59	76	.....	.....	5	3	33	1	26	5	46
Newaygo	108	15	58	73	.....	.....	1	4	53	4	11	14	51
Oakland	276	41	98	139	.....	1	7	8	97	.....	28	65	85.7
Oceana	96	15	30	45	.....	.....	.....	7	22	3	13	4	36.4
Ogemaw	36	10	36	46	1	.....	2	4	37	.....	21	9	29
Osceola	95	17	48	65	1	3	3	2	43	2	13	19	49.7
Otsego	37	16	18	34	.....	.....	3	4	17	3	7	5	28
Ottawa	190	57	145	202	.....	1	7	11	93	4	83	24	144.9
Presque Isle	26	9	4	13	.....	.....	.....	1	5	2	5	2	8.5
Saginaw	268	37	120	157	.....	.....	3	6	96	.....	53	26	129.4
St. Clair	209	14	93	107	.....	1	4	6	76	2	14	37	70.2
St. Joseph	173	39	146	185	.....	2	5	13	130	1	38	48	149
Sanilac	147	43	59	102	1	1	4	12	50	.....	27	12	77.9
Schoolcraft	17	10	13	23	.....	.....	3	1	3	.....	16	3	13
Shiawassee	153	26	70	96	2	2	3	5	49	7	26	26	55
Tuscola	153	46	94	140	.....	2	6	9	97	1	31	35	109.9
Van Buren	202	33	75	108	.....	.....	8	11	79	.....	13	40	71
Washtenaw	249	42	85	127	.....	4	2	7	79	1	34	19	63
Wayne	496	39	77	116	.....	6	7	5	54	1	40	32	62
Wexford	78	38	51	89	.....	1	3	3	33	3	46	13	60

TABLE XXIV.

General Statistics of State and Incorporated Institutions, Compiled from the Reports of Officers for the Academic Year 1883-4.

Name of Institution.	Location.	Date of Charter or Organization.	Religious Denomination.	Name of Principal, President, or Superintendent.	No. of Instructors.	No. of Students (or Inmates) during Year.	No. of Graduates at last Commencement.	Whole No. of Graduates since Founded.	No. of Volumes in Library.	No. of Volumes added to Library during Year.
State:										
University of Michigan	Ann Arbor	1841	Non-sectarian	James B. Angell	81	1,377	401	7,408	54,900	6,604
State Agricultural College	Lansing	1855	Non-sectarian	T. C. Abbot	12	175	30	304	8,000	.....
State Normal School	Ypsilanti	1852	Non-sectarian	Edwin Willits	20	671	103	1,188	5,973	1,216
Institution for Deaf and Dumb	Flint	1854	Non-sectarian	M. T. Gass	15	271	14	.....	2,374	285
School for the Blind	Lansing	1880	Non-sectarian	J. F. McElroy	8	70	.....	.....	980	5
State Reform School	Lansing	1856	Non-sectarian	C. A. Gower	9	585	.....	.....	3,000	150
Industrial Home for Girls	Adrian	1881	Non-sectarian	Miss Marg't Scott	5	198	.....	.....	400	121
School for Dependent Children	Coldwater	1874	Non-sectarian	John N. Foster	6	300	.....	.....	1,300	.....
Incorporated:										
Adrian College	Adrian	1859	Methodist Protestant	D. S. Stephens	14	174	16	.....	3,500	150
Albion College	Albion	1861	Methodist Episcopal	L. R. Fiske	15	340	24	302	3,937	240
Battle Creek College	Battle Creek	1874	Seventh Day Adventist	W. H. Littlejohn	10	284	1	34	1,000	25
Detroit College	Detroit	1881	Roman Catholic	James G. Walshe	10	217	7	14	4,500	160
Detroit Home and Day School	Detroit	1883	Non-sectarian	J. D. Liggett	15	231	7	18	.....	.....
Grand Traverse College	Benzonia	1863	Congregational	N. P. Willard. *	....	.....	.....	.....	.....	.....
Hillsdale College	Hillsdale	1855	Free-Will Baptist	D. W. C. Durgin	14	670	25	523	7,375	175
Hope College	Holland	1866	Reformed Church in America	Charles Scott	9	128	2	108	6,235	310
Kalamazoo College	Kalamazoo	1855	Baptist	Kendall Brooks	5	204	7	152	3,350	119
Olivet College	Olivet	1859	Congregational and Presbyterian	H. Q. Butterfield	15	324	9	180	12,000	160
Michigan Female Seminary	Kalamazoo	1856	Presbyterian	Miss M. H. Sprague	9	48	4	84	1,209	209
Michigan Military Academy	Orchard Lake	1877	Non-sectarian	J. Sumner Rogers	7	90	12	58	.....	.....
Raisin Valley Seminary	Adrian	1863	Friends	W. W. White	4	81	5	61	400	150
Somerville School	St. Clair	1880	Non-sectarian	C. C. Wetsell	8	38	6	21	476	.....
Spring Arbor Seminary	Spring Arbor	1874	Free Methodist	Clark Jones. *	....	.....	.....	.....	.....	.....

* No reports from these institutions.

TABLE XXV.

Financial Statistics of State and Incorporated Educational Institutions, Compiled from the Reports of Officers for Academic Year 1883–4.

Institutions.	Annual Cost of Tuition per Student.	Av. Cost of Board per Week.	Total Av. Annual Cost per Student (to the Student)	Total Av. Annual Cost per Student (to the State.)	Estimated Value of Grounds, Buildings, Apparatus, etc.	Amount of Productive Funds.	Income from Productive Funds.	Amount of Legislative Appropriation for Year 1883.	Receipts from Tuition Fees during Year.	Receipts from all other Sources.	Current Expenses for the Year.	Expenses for Permanent Improvements.	Liabilities.
State:													
University of Michigan	[a] $25 00	[b] $4 00	$196 00	$122 97	$812,984 00	$344,151 66	$33,410 43	$25,700 00	$56,628 42	$5,339 05	$189,333 96	$22,611 38	.....
State Agricultural College	.....	2 50	125 00	[c]	350,000 00	450,000 00	27,000 00	18,911 00	5,327 49	6,960 66	44,441 26	20,173 57	.....
State Normal School	10 00	2 75	200 00	34 29	146,705 00	70,000 00	4,200 00	27,050 00	2,577 50	.....	33,703 61	7,700 00	.....
Institution for the Deaf and Dumb	.....	2 95	.....	176 74	437,123 00	.....	.....	45,000 00	50 00	.....	45,000 00	.....	.....
School for the Blind	.....	.....	.....	251 98	143,750 00	.....	.....	63,000 00	.....	.....	17,638 85	.....	.....
State Reform School	.....	.....	.....	117 85	235,000 00	.....	.....	45,000 00	.....	10,244 62	46,608 38	15,827 83	.....
Industrial Home for Girls	.....	.....	.....	176 90	144,489 00	.....	.....	58,749 40	.....	541 96	26,004 76	25,680 30	.....
School for Dependent Children	.....	.....	.....	118 00	175,000 00	.....	.....	39,000 00	.....	.....	38,900 00	2,000 00	.....
Incorporated:													
Adrian College	27 00	2 00	.....	.....	125,000 00	80,000 00	5,000 00	.....	4,500 00	2,000 00	11,500 00	200 00	$20,000 00
Albion College	Free.	2 50	.....	.....	75,000 00	170,000 00	10,000 00	.....	8,000 00	10,000 00	22,000 00	11,500 00	20,000 00
Battle Creek College	18 00	1 75	.....	.....	48,531 00	.....	.....	.....	2,047 09	216 28	4,710 44	47 36	8,525 00
Detroit College	40 00	.....	.....	.....	60,000 00	.....	.....	.....	6,013 50	.....	4,500 00	250 00	15,000 00
Detroit Home and Day School	[d]	8 00	.....	.....	50,000 00	.....	.....	.....	18,000 00	.....	14,000 00	.....	9,000 00
Grand Traverse College	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Hillsdale College	17 00	2 00	.....	.....	100,000 00	135,000 00	10,162 16	.....	156 60	.....	9,894 60	.....	.....
Hope College	15 00	2 75	.....	.....	45,000 00	77,813 23	3,914 15	.....	1,499 60	4,469 44	9,611 05	.....	1,000 00
Kalamazoo College	18 00	2 75	.....	.....	100,000 00	55,437 11	4,786 61	.....	1,734 70	2,406 60	9,894 77	.....	12,917 00
Olivet College	[e]	2 00	.....	.....	133,000 00	131,228 00	7,188 22	.....	4,996 56	15,980 41	19,873 63	9,740 12	10,645 00
Michigan Female Seminary	175 00	4 60	.....	.....	50,000 00	.....	.....	.....	8,400 00	.....	8,200 00	200 00	.....
Michigan Military Academy	[f] 3 50	.....	.....	.....	60,000 00	.....	.....	.....	.....	.....	.....	.....	.....
Raisin Valley Seminary	20 00	2 00	.....	.....	20,000 00	23,000 00	1,500 00	.....	1,500 00	.....	3,000 00	2,500 00	2,500 00
Somerville School	40 00	6 50	.....	.....	55,000 00	.....	.....	.....	.....	.....	.....	17,000 00	.....
Spring Arbor Seminary	*	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

[a] Residents of other States than Michigan, $35.00. [b] Including room. [c] Not reported. [d] Tuition from $40.00 to $100.00. [e] Annual tuition from $21.00 to $30.00. [f] Including board. * No reports from these institutions.

TABLE XXVI.

Members of County Boards of School Examiners for the Year 1884-5.

Counties.	Names.	Postoffices.	Occupations.	Terms Expire.
Alcona	C. P. Reynolds, chairman	Harrisville	Agent	1885
	J. E. Fair, secretary	Harrisville	County Treasurer	1886
	D. McGregor	Harrisville	Merchant	1887
Allegan	J. W. Humphrey, chairman	Wayland	Teacher	1885
	P. A. Latta, secretary	Allegan	Attorney	1887
	J. F. Taylor	Douglas	Clergyman	1886
Alpena	F. S. Dewey, chairman	Alpena	Merchant	1886
	E. L. Little, secretary	Alpena	Clergyman	1885
	A. R. McDonald	Alpena	Attorney	1887
Antrim	C. B. Zeran, chairman	Central Lake	Teacher	1886
	W. R. Grant, secretary	Mancelona	Teacher	1885
	C. S. Gulle	Bellaire	Attorney	1887
Arenac	A. L. Wilkins, chairman	Omer	Farmer	1886
	J. J. Decker, secretary	Standish	Clerk	1885
	Joseph H. Belknap	Omer	Farmer	1887
Baraga	O. J. Foote, chairman	L'Anse	Farmer	1885
	E. L. Mason, secretary	L'Anse	Banker	1887
	T. McGillan	Baraga	County Treasurer	1886
Barry	W. I. Marble, chairman	Nashville	Teacher	1885
	Enos Andrus, secretary	Irving	Farmer	1886
	G. D. Barden	Woodland	Farmer	1887
Bay	J. H. Sharpe, chairman	Essexville	Teacher	1886
	S. R. Hoobler, secretary	Kawkawlin	Teacher	1885
	M. R. Hartwell	Bay City	Teacher	1887
Benzie	D. F. Holden, chairman	Ovlatt	Farmer	1885
	T. B. Pettitt, secretary	Benzonia		1886
	Mrs. Rose Woodward	Frankfort	Housekeeper	1887
Berrien	H. C. Crosby, chairman	New Buffalo	Teacher	1886
	J. C. Lawrence, secretary	Benton Harbor	Teacher	1885
	C. B. Groat	Niles	Teacher	1887
Branch	G. N. Carman, chairman	Union City	Teacher	1886
	H. J. Cook, secretary	Coldwater	Clergyman	1885
				1885
Calhoun	Miss A. R. Camburn, chairman	Albion	Housekeeper	
	R. A. Culver, secretary	Tekonsha	Teacher	1887
	S. G. Gorslino	Battle Creek	Farmer	1886
Cass	M. Pemberton, chairman	Vandalia	Teacher	1886
	C. A. Mosher, secretary	Cassopolis	Teacher	1885
	R. W. Hain	Dailey		1887
Charlevoix	R. L. Corbett, chairman	Boyne City	Attorney	1886
	John Redpath, secretary	Boyne Falls	Clergyman	1885
	Wm. Harris	Norwood	Farmer	1887
Cheboygan	D. J Galbraith, chairman	Cheboygan	Teacher	1885
	Frank Shepherd, secretary	Cheboygan	Attorney	1886
	A. W. Westgate	Cheboygan	Merchant	1887
Chippewa	Thomas Ryan, chairman	Sault Ste. Marie	Farmer	1886
	G. L. Trempe, cecretary	Sault Ste. Marie	Merchant	1885
	E. S. B. Sutton	Sault Ste. Marie	Attorney	1887
Clare	G. J. Cummins, chairman	Farwell	Attorney	1885
	A. J. Doherty, secretary	Clare	Teacher	1886
	T. W. Averill	Harrison	Book-keeper	1887
Clinton	S. W. Baker, chairman	Ovid	Teacher	1885
	W. H. Brunson, secretary	St. Johns	Clerk	1887
	C. E. Hollister	Laingsburg	Surveyor	1886
Crawford	S. Revell, chairman	Roscommon	Farmer	1885
	W. A. Masters, secretary	Grayling	Postmaster	1886
	F. M. Richmond	Roscommon		1887
Delta	H. W. Davis, chairman	Fayette	Physician	1885
	E. P. Lott, secretary	Escanaba	Attorney	1886
	John Power	Escanaba	Attorney	1887
Eaton	J. L. Wagner, chairman	Grand Ledge	Teacher	1885
	Orr Schurtz, secretary	Eaton Rapids	Editor	1887
	Miss M. L. Jones	Charlotte	Teacher	1886
Emmet	J. L. Morrice, chairman	Harbor Springs	County Treasurer	1885
	A. L. Deuel, secretary	Harbor Springs	Attorney	1886
	J. T. Ewing	Petoskey	Teacher	1887
Genesee	G. F. Brown, chairman	Duffield	Teacher	1885
	A. E. Ransom, secretary	Flushing	Editor	1886
	E. D. Black	Davison Station	Teacher	1887
Gladwin	F. L. Prindle, chairman	Gladwin	Attorney	1886
	C. C. Fouch, secretary	Gladwin	Attorney	1885
	Francis Burkett	Meredith	Farmer	1887
Grand Traverse	D. S. Nickerson, chairman	Kingsley	Farmer	1886
	C. J. Kneeland, secretary	Traverse City	Physician	1885
	H. G. Reynolds	Old Mission	Farmer	1887
Gratiot	G. T. Brown, chairman	Ithaca	Attorney	1885
	W. C. Calland, secretary	St. Louis	Clergyman	1886
	O. M. Everden	Ithaca		1887

TABLE XXVI.—*Continued.*

Counties.	Names.	Postoffice.	Occupation.	Terms Expire.
Hillsdale	A. E. Masters, chairman	Reading	Teacher	1885
	W. A. Drake, secretary	Hillsdale	Teacher	1887
	C. R. Coryell	Jonesville	Farmer	1886
Houghton	S. E. Whitney, chairman	Hancock	Teacher	1885
	W. B. Northup, secretary	Hancock	Clerk	1886
	H. M. Slauson	Houghton	Teacher	1887
Huron	G. A. Maywood, chairman	Bad Axe	Attorney	1886
	E. P. Greene, secretary	Port Hope	Teacher	1885
	F. E. DuPaul	Sebewaing	Teacher	1887
Ingham	J. S. Huston, chairman	Williamston	Teacher	1886
	A. R. Hardy, secretary	Okemos	Teacher	1885
	J. J. Calkins	Leslie	Attorney	1887
Ionia	J. W. Ewing, chairman	Ionia	Teacher	1885
	J. R. Millard, secretary	Belding	Teacher	1886
	A. V. Phister	Hubbardston	Editor	1887
Iosco	D. E. Guiley, chairman	East Tawas	Surveyor	1886
	S. B. Laird, secretary	Tawas City	Teacher	1885
	C. R. Henry	AuSable	Attorney	1887
Isabella	P. F. Dodds, chairman	Mount Pleasant	Attorney	1886
	M. Devereaux, secretary	Mount Pleasant	Attorney	1885
	L. C. Griffith	Mount Pleasant	County Clerk	1887
Jackson	D. C. Pierce, chairman	Brooklyn	Teacher	1885
	D. E. Haskins, secretary	Jackson	Teacher	1887
	Eugene Miller	Grass Lake	Teacher	1886
Kalamazoo	Ashley Clapp, chairman	Vicksburg	Teacher	1886
	Alex. Hadlock, secretary	Kalamazoo	Teacher	1885
	J. W. Parkhurst	Augusta	Farmer	1887
Kalkaska	C. C. Jencks, chairman	Kalkaska	Attorney	1885
	W. Douglas, secretary	Lodi	Teacher	1887
	I. A. Porter	Kalkaska	Clergyman	1886
Kent	Geo. W. Bennett, chairman	Grand Rapids	Farmer	1886
	W. M. Chapman, secretary	Lowell	Teacher	1885
	G. A. Ranney	Canonsburg	Farmer	1887
Keweenaw	J. C. Dunstan, chairman	Central Mine	Teacher	1886
	F. E. Wood, secretary	Clifton	Teacher	1885
	W. A. Williams	Copper Falls	Teacher	1887
Lake	D. A. Cornell, chairman	Chase	Farmer	1886
	F. J. West, secretary	Baldwin	Teacher	1885
	E. G. Johnson	Luther	Contractor	1887
Lapeer	F. S. Porter, chairman	North Branch	Farmer	1885
	C. H. May, secretary	Imlay City	Clerk	1886
	O. E. Palmerlee	Dryden	Teacher	1887
Leelanaw	W. H. Crowell, chairman	Maple City	Merchant	1886
	Mrs. M. A. W. Dunlap, secretary	Traverse City	Teacher	1885
	S. J. Hutchinson	Northport	Physician	1887
Lenawee	Ira Waterman, chairman	Hudson	Teacher	1885
	H. C. Wilson, secretary	Blissfield	Teacher	1886
	E. G. Walker	Lenawee June.	Teacher	1887
Livingston	M. M. Abbott, chairman	Plainfield	Teacher	1886
	H. E. Reed, secretary	Howell	Farmer	1885
	T. Gordon, Jr.	Howell	Teacher	1887
Mackinac	J. R. Baily, chairman	St. Ignace	Physician	1886
	G. A. Cady, secretary	St. Ignace	Attorney	1885
	James McNamara	St. Ignace		1887
Macomb	S. B. Russell, chairman	Mount Clemens	Journalist	1885
	A. M. Keeler secretary	Richmond	Teacher	1886
	O. D. Thompson	Romeo	Teacher	1887
Manistee	G. H. Kilborn, chairman	Bear Lake	Farmer	1885
	D. S. Harley, secretary	Manistee	Attorney	1886
	D. Bomis	Manistee	Merchant	1887
Manitou	W. J. Gallagher, chairman	St. James	Fisherman	1885
	M. F. O'Donnell, secretary	St. James	Clerk	1887
	Jno. Dunlevy	St. James	Shoemaker	1886
Marquette	H. Olcott, chairman	Ishpeming	Teacher	1886
	Jno. Northmore, secretary	Republic	Teacher	1885
	Chas. Kelsey	Marquette	Teacher	1887
Mason	Mrs. E. W. Loomis, chairman	Scottville	Housekeeper	1885
	G. H. Blodgett, secretary	Ludington	Attorney	1885
	B. S. Mills	Fountain	Farmer	1887
Mecosta	C. E. Tuck, chairman	Mecosta	Teacher	1886
	W. D. Hopkinson, secretary	Paris	Merchant	1885
	P. M. Brown	Big Rapids	Farmer	1887
Menominee	J. W. Bird, chairman	Menominee	Merchant	1885
	A. W. Bill, secretary	Menominee	Clergyman	1887
	F. H. Coe	Menominee	Teacher	1886
Midland	Jos. Mayer, chairman	Midland	Teacher	1885
	T. W. Crissey, secretary	Midland	Editor	1887
	W. W. Allen	Midland	Teacher	1886

TABLE XXVI.—*Continued.*

Counties.	Names.	Postoffices.	Occupations.	Terms Expire.
Missaukee	Duncan McBain, chairman	Galt	Farmer	1885
	J. T. Stitt, secretary	Norwich	Merchant	1886
	R. P. Lamb	Manton	Farmer	1887
Monroe	T. E. Allen, chairman	Newport	Teacher	1886
	J. F. Gilday, secretary	LaSalle	Farmer	1885
	J. R. Rodgers	Willits	Farmer	1887
Montcalm	S. F. Kennedy, chairman	Lakeview	Teacher	1886
	F. A. Lyons, secretary	Stanton	Attorney	1885
	E. P. Church	Greenville	Teacher	1887
Montmorency	A. T. Rensberry, chairman	Hillman	Merchant	1885
	Tillison Babcock, secretary	Godfrey	Teacher	1886
	August Bargehr	Atlanta	Farmer	1887
Muskegon	J. H. Cogshall, chairman	Fruitport	Teacher	1885
	N. L. Downie, secretary	North Muskegon	Teacher	1886
	Frank Bracelin	Montague	Journalist	1887
Newaygo	W. S. Millard, chairman	Hesperia	Teacher	1885
	Tyson Smith, secretary	Newaygo	Physician	1886
	Edwin Ware	Fremont	Teacher	1887
Oakland	Clark Stanton, chairman	Oxford	Pension Examin'r	1886
	T. S. Clark, secretary	Davisburgh	Farmer	1885
	E. R. Webster	Pontiac	Attorney	1887
Oceana	G. C. Myers, chairman	New Era	Editor	1886
	Seth Edson, secretary	Hart	Farmer	1885
	F. W. Van Wickle	Shelby	Druggist	1887
Ogemaw	J. F. Gregg, chairman	Prescott	Teacher	1885
	F. L. Snodgrass, secretary	West Branch	Attorney	1886
	A. E. Sharpe	West Branch	Teacher	1887
Ontonagon	G. E. Arnold, chairman	Greenland	Teacher	1886
	J. S. Monroe, secretary	Ontonagon	Teacher	1887
				1885
Osceola	A. B. Perrin, chairman	Reed City	Teacher	1885
	J. B. Sleezer, secretary	Sears	Lumberman	1886
	B. E. Scott	Hersey		1887
Oscoda	G. W. Randall, chairman	Harmon	Farmer	1886
	John Randall, secretary	Mio	Editor	1885
	S. H. Hagaman	Mio	County Clerk	1887
Otsego	J. M. Sanborn, chairman	Gaylord	Surveyor	1885
	F. A. Baldwin, secretary	Gaylord	Attorney	1887
	Henry Whiteley	Gaylord	Agent	1886
Ottawa	A. W. Taylor, chairman	Cooperaville	Teacher	1885
	Albert Lahuis, secretary	Zeeland	Merchant	1887
	Mrs. A. V. Weatherwax	Jenisonville	Housekeeper	1886
Presque Isle	Philip A. Inglesby, chairman	Rogers City	Attorney	1886
	Robert J. Horn, secretary	Rogers City	Merchant	1885
	Thos. E. Shaw	Shaw	Teacher	1887
Roscommon	John Mason, chairman	Roscommon	Book-keeper	1885
	M. F. Parker, secretary	Roscommon	Teacher	1886
	G. L. Alexander	Roscommon	Attorney	1887
Saginaw	T. E W. Adams, chairman	Chesaning	Teacher	1885
	W. B. Cubbage, secretary	Freeland	Physician	1886
	A. L. Bingham	East Saginaw	Teacher	1887
St. Clair	Harvey Tappan, chairman	Columbus	Teacher	1886
	Lincoln Avery, secretary	Port Huron	Attorney	1885
	E. M. Fisher	Capac	Teacher	1887
St. Joseph	E. A. Hoisington, chairman	Three Rivers	Teacher	1886
	J. R. Miller, secretary	Constantine	Teacher	1885
	J. G. Plowman	White Pigeon	Teacher	1887
Sanilac	C. E. Swift, chairman	Lexington	Teacher	1885
	C. L. Messer, secretary	Marlette	Banker	1886
	G. A. Parker	Port Sanilac	Teacher	1887
Schoolcraft	O. B. Weed, chairman	Manistique	Teacher	1886
	Edgar C. Cox, secretary	Munising	Merchant	1885
	J. B Lambley	Manistique	Clergyman	1887
Shiawassee	E. M. Plunkett, chairman	Vernon	Teacher	1886
	G. R. Brandt, secretary	Byron	Teacher	1885
	Duane C. Cooper	Owosso		1887
Tuscola	C. Q. Tappan, chairman	Vassar	Teacher	1886
	J. A. Chapell, secretary	Tuscola	Teacher	1885
	W. H. Honey	Caro	Teacher	1887
Van Buren	A. E. Jennings, chairman	Lawrence	Teacher	1886
	A. C. Martin, secretary	Paw Paw	Editor	1885
	E. F. Bradt	Hartford	Teacher	1887
Washtenaw	G. S. Wheeler, chairman	Salem	Merchant	1886
	E. C. Warner, secretary	Ypsilanti	Farmer	1885
	M. J. Lehman	Chelsea	Attorney	1887
Wayne	F. R. Ward, chairman	Oak	Teacher	1885
	J. P. Reed, secretary	Rockwood	Physician	1886
	Cholett Cady	Wayne	Farmer	1887
Wexford	H. M Enos, chairman	Cadillac	Editor	1885
	G. S. Hicks, secretary	Manton	Clergyman	1886
	H. C. Foxworthy	Colfax	Teacher	1887

DOCUMENTS

ACCOMPANYING THE

REPORT

OF THE

SUPERINTENDENT OF PUBLIC INSTRUCTION.

UNIVERSITY OF MICHIGAN.

REPORT OF THE BOARD OF REGENTS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR—By the law of the State of Michigan, act No. 206, 1881, it is made the duty of the Board of Regents to present to you an exhibit of the affairs of the University, in each year, setting forth its real condition; the amount of receipts and expenditures; the number of professors, instructors, and other officers, and the compensation of each; the number of students in the several departments, and in the different classes; the books of instruction used; an estimate of the expenses for the ensuing year, and whatever else the Superintendent of Public Instruction may require to embody in his report to the Governor and the Legislature.

Hitherto the Board of Regents are happy to say that their report under the law of 1881 has been so full and complete as to receive from your department special commendation. So long as the Deans of the several faculties report to the President, and the President to the Board, and the Board to the State Superintendent, and the Superintendent to the Legislature through the Governor, it can scarcely fail to be both comprehensive and correct.

The committees on the University, in the House and in the Senate, may rely with entire confidence on having all the facts in the case necessary to intelligent action. They can be just in recommending to the Legislature such appropriations as are absolutely requisite. They can be generous, as the representatives of the people of Michigan, who have now more reason than ever to recognize the University as the crowning glory of the State.

The Board are glad to say, that in addition to their regular and well-defined duties, they have the privilege, from time to time, in their annual report of "presenting such other information," and even "such suggestions as they deem important," alike in reference to the material progress of the University and its teaching force.

But for the promise thus implied of timely help to our pressing needs, the comfort of the Board in the administration of University affairs for the last two years would have been little, and their satisfaction still less.

As a Board, they have been entirely harmonious among themselves, and equally cordial in all their relations to the President. To what extent they have been faithful to the trust committed to them by the people, let the record speak for itself, as found in the published minutes of their proceedings for the current year. But their fidelity once admitted and their official action approved, it will follow as a natural inference, that their suggestions in this

report are not those of mere routine. So far from being hasty, they are rather the result of anxious and mature deliberation. They have a real historic meaning; they have a distinct and definite aim in present existing circumstances; they are designed to serve a very important purpose in the future. As such, the Board of Regents, jointly and severally, submit the report for 1884 and its accompanying suggestions, to the Superintendent of Public Instruction and all whom it may concern, for their most thorough and generous consideration.

GOVERNMENT.

The University is governed by a code of by-laws, revised, amended, and largely increased by the present Board of Regents, and so arranged, as far as possible, to designate specific duties, and avoid constructive offences. Since its adoption there has been comparatively little complaint on the part of any faculty, professor, or student. Discipline has been efficiently maintained, and the work of the University in all its departments has gone on with great harmony.

DEGREES.

The whole number of degrees conferred by the Board in 1884 is 404—of these, after examination by their respective faculties, 401; honorary degrees, 3.

For a revision of the terms on which degrees are conferred in the Literary Department, see action of the Board at their meeting in May, 1882 (Superintendent's Report for 1882, p. 103).

STANDING COMMITTEES.

The standing committees of the Board of Regents are as follows:

Executive Committee.—The President, Regents Blair, Duffield, and Grosvenor.

On Finance.—Regents Grosvenor, Van Riper, and Willett.

Department of Literature, Science and the Arts.—Regents Duffield, Van Riper, and Clark.

Department of Law.—Regents Joy, Blair, and Willett.

Department of Medicine.—Regents Van Riper, Joy, and Shearer.

Department of Chemistry and Pharmaceutics.—Regents Joy, Shearer and Blair.

On Library.—Regents Duffield, Van Riper, Willett, and the President.

On Museum, School of Mines, and Astronomical Observatory.—Regents Joy, Shearer, and Blair.

On Buildings and Grounds.—Regents Shearer, Grosvenor and Joy.

I. *Executive Committee.*

The proceedings of this committee are now duly recorded by the Secretary and the minutes presented to the Regents at their next meeting. On their approval, the action of the committee becomes that of the Board itself, and hence there is no necessity for further report.

II. *Committee on Finance.*

The report of this committee as read at the October meeting, accepted by them, and ordered to be printed, is as follows:

The Finance Committee of the Board of Regents herewith present the Treasurer's statement of receipts and expenditures for the fiscal year ending

September 30, 1884, and their estimates for the year ending September 30, 1885.

Owing to the early date of the present meeting of the Board, the Treasurer closed his books on the evening of the 27th of September; and consequently no account is taken in his statement of the receipts from students on the closing days of the month. About $11,000 were received on those days, and will be accounted for in the next annual statement.

A careful and thorough examination has been made, under the committee's direction, of all the accounts, vouchers, tickets, and stubs remaining in the hands of the Treasurer or the Steward as evidence of the sums that were receivable or payable during the year. In the course of this examination a few clerical errors and discrepancies have been detected, but nothing that affects the accuracy of the balances reported. The committee are satisfied that on the part both of the Treasurer and the Steward every effort has been made to ensure accuracy in their work, and that both officers have attended to their duties with praiseworthy fidelity and zeal for the best interests of the University.

It will be observed that the balance on hand at the beginning of the year, $45,327.58, has been reduced to $27,011.94. This reduction is due in part to the fact that a loan of $4,000, belonging to the transactions of the previous year, remained to be paid on the first of October, 1883, and more largely to the fact that the actual receipts of the last days of the fiscal year have not been included in the report. At the present time there are no loans outstanding.

The above balance, however, it must be said, does not fully represent the condition of the University treasury to-day. In addition to a few outstanding bills for current expenses, the general pay roll for the last quarter of the year, amounting to $28,683.75, and the special pay rolls, amounting to $1,950, are now due. In addition, the sum of $24,634 has been already collected from students in payment of fees and deposits for the year to come.

The financial condition of the University is such that it is only by the most rigid economy in all departments, and by the exercise of excellent judgment on the part of the Auditing Board, that we can hope to keep the expenditures within the receipts. As the University is at present organized, its ordinary receipts are all absorbed in meeting current obligations, and nothing is left for the Board to use in the way of adding to the facilities offered—scarcely enough, indeed, to maintain the present standard. Unless relief is obtained from some quarter, it will be impossible for the University to keep pace with the State's and the country's progress, or long to retain the high position it now holds among the educational institutions of the country. The committee are satisfied that no reduction in the present scale of expenditure is possible without seriously crippling the efficiency of the University, and that it is the duty of the Board to do all in its power to secure for the University an immediate and permanent increase of revenue.

All of which is respectfully submitted.

E. O. GROSVENOR.

October 2, 1884.

REPORT OF THE TREASURER.

To the Finance Committee of the Board of Regents, University of Michigan:

GENTLEMEN:—Herewith please find statement of the receipts and disbursements of this office for the fiscal year ending September 30, 1884.

RECEIPTS.

Amount in treasury October 1st, 1883			$45,327 58
From State Treasurer, Acc't University Interest	$38,410 43		
" " " " Aid 1-20 Mill Tax	40,500 00		
" " " " Homœopathic College, Law 1875	6,000 00		
" " " " " " 1883	2,000 00		
" " " " Dental " " 1883	7,500 00		
" " " " University Hospital, " 1883	4,375 00		
" " " " Library Building, " 1881	15,000 00		
" " " " Homœopathic Hospital, " 1883	2,500 00		
" " " " General Library, " 1883	7,500 00		
" " " " Steam Heating, " 1883	4,000 00		
" " " " Physical Laboratory, " 1883	1,500 00		
		129,285 43	
" First National Bank, Ann Arbor, Interest on deposits		364 18	
" Homœopathic Hospital, material sold		160 50	
" University " " "		357 74	
" Dental operating room " "		2,767 80	
" General Library, rebate on books bought		3 00	
" Anatomical material sold		35 00	
" Miscellaneous sources		1,651 46	
" Students fees, Literary department	$15,955 00		
" " " Law "	9,255 00		
" " " Medical "	10,295 00		
" " " Pharmacy "	2,425 00		
" " " Chemical Laboratory department	8,084 07		
" " " Practical Anatomy	3,315 00		
" " " Homœopathic College	2,030 00		
" " " Dental "	2,140 00		
" " " General Chemistry	215 00		
" " " Histology	698 00		
" " " Microscopy	255 00		
" " " Diplomas	4,148 00		
" " " Mechanics	115 00		
" " " General Library	74 75		
Amount of Students' Fees received	$59,004 82	59,004 82	
" " " refunded during the year	2,376 40		
Net	$56,628 42		
Total received during the year			$238,957 58

DISBURSEMENTS.

Paid salaries of officers, professors, and employés:	
" from General Fund	$113,399 71
" " Homœopathic College Fund	6,557 00
" " " " " Additional Prof. Fund	2,200 00
" " " Hospital "	366 00
" " Dental College Fund	5,991 67
" " University Hospital Fund	1,650 00
" " Ass't in Mechanical "	1,000 00
Total amount paid salaries	$131,164 38

Current Expenses	$36,071 76	
Homœpathic College, special	411 50	
Dental College, "	2,667 58	
University Hospital, "	1,910 74	
Homœpathic " "	37 69	
Physiological Laboratory "	95 43	
Physical " "	1,606 45	
Mechanical " "	1 07	
Library Building "	15,732 22	
General Library "	10,332 58	
Eye and Ear Ward "	14 78	
Steam heating "	6,879 46	
		$80,781 26
Total		$211,945 64
Balance in Treasury September 30, 1884		27,011 94
Amount accounted for during the year		$238,957 58

GENERAL FUND.

Receipts to the General Fund.

Balance in Treasury October 1st, 1883	$26,050 69
From State Treasurer—State Aid 1-20 Mill Tax	40,500 00
" " " —University Interest	38,410 43
" First National Bank Ann Arbor, interest account	364 15
" Anatomical material sold	35 00
" Miscellaneous sources	1,651 46
" Students' fees, "net,"	56,628 42
Total receipts to General Fund	$163,640 15

Disbursements from the General Fund.

Paid Salaries of Officers, Professors, and employés	$113,399 71	
" Vouchers, Contingent	3,876 58	
" " Alterations and Repairs	2,005 09	
" " Fuel and Lights	5,420 11	
" " General Library	326 85	
" " Medical "	241 90	
" " Law "	960 63	
" " Grounds	727 30	
" " Postage	542 91	
" " Insurance	1,367 25	
" " Advertising and Printing	1,865 68	
" " Museum	618 46	
" " Chemical Laboratory	5,322 69	
" " Engineering	217 04	
" " Astronomical Observatory	267 06	
" " Furniture and Apparatus	26 50	
" " Construction	142 25	
" " Anatomical	2,878 81	
" " Physics	22 01	
" " Physiology	142 15	
" " Calendar	824 87	
" " Botanical	28 21	
" " Histological	401 59	
" " Microscopical	130 12	
" " General Chemistry	371 20	
" " Mechanical	645 64	
" " Advertising Medical	141 25	
" " " Pharmacy	75 50	
" " " Law	15 00	
" " Homœopathic College	90 00	
" " Loan paid Oct. 1st, 1883	4,000 00	
" " Correction on Vouchers of 1883	71	
Total disbursements from General Fund	$147,095 07	
Balance in Treasury September 30th, 1884	16,545 08	
Amount accounted for from General Fund		$163,640 15

SPECIAL FUNDS.

Homœopathic Medical College.

Receipts:		
From balance in Treasury, October 1st, 1883	$1,156 82	
" State Treasurer	8,000 00	$9,156 82
Disbursements:		
Paid salaries professors and employés	6,557 00	
" vouchers for current expenses	411 50	
Balance in Treasury September 30th, 1884	2,188 32	9,156 82

Additional Prof. Homœopathic College.

Receipts:		
From balance in Treasury October 1st, 1883		2,200 00
Disbursements:		
Paid salaries to Professor		2,200 00

Dental College.

Receipts:		
From State Treasurer	$7,500 00	
" sale of material and appliances	2,767 80	10,267 80
Disbursements:		
Paid balance overdrawn October 1st, 1883	320 83	
" salaries professors and instructors	5,991 67	
" vouchers current expenses	2,667 58	
Balance in Treasury September 30th, 1884	1,287 72	10,267 80

University Hospital.

Receipts:		
From State Treasurer	$4,375 00	
" sale of material and appliances	357 74	4,732 74
Disbursements:		
Paid balance overdrawn October 1st, 1883	571 98	
" salaries professors and employés	1,650 00	
" vouchers current expenses	1,910 74	
Balance in Treasury September 30th, 1884	600 02	4,732 74

Homœopathic Hospital.

Receipts:		
From balance in Treasury October 1st, 1883	$1,145 25	
" State Treasurer	2,500 00	
" sale of material and appliances	160 60	3,805 85
Disbursements:		
Paid salaries of professors and employés	$366 00	
" vouchers current expenses	2,437 69	
Balance in Treasury September 30th, 1884	1,002 16	3,805 85

Library Building.

Receipts:		
From Balance in Treasury October 1st, 1883	$732 22	
" State Treasurer	15,000 00	15,732 22
Disbursements:		
Paid vouchers for construction		15,732 22

Eye and Ear Ward.

Receipts:		
From balance in Treasury October 1st, 1883		17 55
Disbursements:		
Paid vouchers current expenses	$14 78	
Balance in Treasury September 30th, 1884	2 77	17 55

General Library.

Receipts:		
From balance in Treasury October 1st, 1883	$6,210 36	
" State Treasurer	7,500 00	
" rebate on books	3 00	13,713 36
Disbursements:		
Paid vouchers current expenses	10,332 58	
Balance in Treasury September 30th, 1884	3,380 78	13,713 36

Mechanical Laboratory.

Receipts:		
From balance in Treasury October 1st, 1883	$1,409 78	
" amount overdrawn September 30th, 1884	111 29	$1,521 07
Disbursements:		
Paid vouchers current expenses		1,521 07

Assistant in Mechanical Laboratory.

Receipts:		
From balance in Treasury Oct. 1st, 1883		1,000 00
Disbursements:		
Paid vouchers, current expenses		1,000 00

Physiological Laboratory.

Receipts:		
From balance in Treasury Oct. 1st, 1883		1,927 06
Disbursements:		
Paid vouchers, current expenses	$1,195 43	
Balance in treasury Sept. 30, 1884	731 63	1,927 06

Physical Laboratory.

Receipts:		
From balance in Treasury Oct. 1st, 1883	$1,491 20	
" State Treasurer	1,500 00	2,991 20
Disbursements:		
Paid vouchers, current expenses	1,606 45	
Balance in Treasury Sept. 30, 1884	1,384 75	2,991 20

Steam Heating.

Receipts:	
From balance in Treasury Oct. 1st, 1883	2,879 46
Disbursements:	
Paid vouchers, current expenses	2,879 46

RECAPITULATION.

Balances in Treasury September 30, 1884:	
Homœopathic Medical College	$2,188 32
University Hospital	600 02
Homœopathic Hospital	1,002 16
Eye and Ear Ward	2 77
General Library	3,380 78
Physical Laboratory	1,384 75
Physiological Laboratory	731 63
Dental College	1,287 72
	$10,578 15
Deduct Overdrawn Balances:	
Mechanical Laboratory	111 29
Special Fund Balances	$10,466 86
General Fund Current Expense Balances	16,545 08
Amount in Treasury September 30, 1884	$27,011 94

Respectfully submitted,

H. SOULE,
Treasurer.

III. Department of Literature, Science, and the Arts.

To the average citizen, teacher, or college graduate, familiar only with the curriculum in olden time, it is not easy to form any idea that is at all commensurate with the surprising amount and variety of the work that is here done. Admitting all that is said of ignorance as a power for evil, and of knowledge as an equal power for good, they are ready to ask, is there not more cost than compensation? Are there not more wages paid than work

done? Is the work really worth the wages? Have we not reached a point where the further division of labor in education ought to cease? The question is a fair one, and as *the* question of the hour, it ought to be fairly answered.

In order to facilitate inquiry, and afford on this point the information so often desired, it is the design of the Regents in this report to throw wide open the door of every recitation room, and show just *what is taught and what is learned, and whether it is expedient to continue such teaching.*

To accomplish this in the simplest and most intelligible form they would present some tables and schedules which, so far as the Regents are concerned, exhaust the whole topic. The form is not altogether of our own choosing. For some items, as in former years, we might have referred to the calendar of the University for 1883–84, a volume of 200 pages; for others to the announcement of the several faculties, and to their supplementary notice in September; for still others, to the published proceedings of the Board of Regents in 1884–85; and for the remaining items to the President's report to the Board, and the report of the Committee on Finance, which they have accepted and ordered to be printed.

But the new law is explicit, and will not be satisfied with any document that is merely *printed,* and adopted at second hand. "The Board of each State Institution, which is essentially educational in its character, shall make out and present to the Superintendent of Public Instruction, *a report in manuscript.*"

In accordance with the recent statute under which they find themselves (Act 206, 1881), the Regents would present;

1. A table showing the number of subjects taught; the number of courses to each subject; the number of students in each course, and the number of hours per week.

2. A table showing the amount of time devoted by the professors to their duties in this department.

3. A table showing the text-books used in the various courses of instruction, and by what authors.

4. A schedule showing the amount of salaries in this department, and its total expenditures.

These will show the true condition of the great central department of the institution, the root and trunk out of whose strength and vigor have sprung all the flourishing branches.

TABLE I.

Showing the Number of Students Present in the Various Courses at the time of Examinations.

No. of Courses.	SUBJECT.	No. of Students in each Course.	No. of Hours per week.
	I. THE CLASSICS.		
	I. GREEK.		
I	Lysias; Athenian History; Goodwin's moods and tenses	49	4
III	Demosthenes (De Corona); Lectures on Greek orators	39	4
V	Teachers' course (Grammar)	10	1
VI	Homer (Odyssey)	41	3
VII	Sophocles (Antigone); Aristophanes (Clouds)	23	4
IX	Theocritus	12	2
X	Teachers' Seminary (Anabasis; Prose Composition)	8	1
XI	Herodotus (Selections for reading at sight)	11	2
XII	Seminary (Plays: Agamemnon, of Æschylus; Ajax, of Sophocles; Medea, of Euripides)	9	3
XIII	Greek Literature. Lectures and Recitations	47	1
XIX	Aristophanes (Birds, and Plutus)	6	3
XX	Sophocles (Electra); Aristophanes (Frogs)	15	4
XXI	Plato (Crito and Gorgias)	4	2
XXII	Pindar (Select Odes)	5	2
	II. LATIN.		
I	Livy (Bk. XXI); Cicero (De Senectute); Prose Composition	76	3
II	Quintilian (Bk. X); Horace (Odes, Bk. I); Lectures on Roman Literature	55	4
III	Pliny (Letters). Lectures	2	2
IV	Classical Antiquities and Art. Lectures	22	2
V	Teachers' Seminary (Æneid)	12	1
VI	Terence (Andria, and Adelphi); Horace (Satires and Epistles)	78	4
VII	Horace (Odes, Bks. II-IV, and Epodes)	14	2
VIII	Horace (Ars Poetica); Juvenal (Select Satires); Persius (Satire V)	51	4
IX	Tacitus (Germania, and Agricola)	23	3
XI	Classical Antiquities and Art. Lectures	22	2
XII	Teachers' Seminary (Prose Composition)	15	1
XIII	Tacitus (Histories). Lectures	9	2
XIV	Seneca (Essays). Lectures	11	2
XVIII	Catullus, Tibullus, Propertius. (Selections)	8	2
XXI	Cicero (Brutus). Lectures	9	1
XXII	Nepos; Cicero (Select Orations); Sight Reading	12	3
	III. SANSCRIT.		
I	Beginners' Course. Whitney's Grammar and Lectures on Comparative Phonetics	7	2
II	Interpretation of texts contained in Lauman's Sanskrit Reader	7	2
III	Elements of Linguistic Science	5	2

TABLE I.—CONTINUED.

No. of Courses.	SUBJECT.	No. of Students in each Course.	No. of Hours per week.
	II. MATHEMATICS.		
I*	Advanced Algebra	49	4
II	General Geometry and Calculus (1st half)	26	4
III*	Advanced General Geometry and Calculus	12	5
IV	Modern Higher Algebra, including Determinants	6	2
V*	Advanced Geometry; Plain and Spherical Trignometry.	49	4
VI	General Geometry and Calculus (2d half)	26	4
VII	Modern Geometry and Trilinear Coördinates	11	2
X	Trigonometry	99	2
XI*	Analytical Mechanics	11	5
XII	Loci	95	1
XIII*	General Geometry and Calculus	25	5
XIV	Advanced Algebra	86	2
XV	Geometry	85	2
XVI*	General Geometry and Calculus	25	5
	III MODERN LANGUAGES AND LITERATURES.		
	I. FRENCH.		
I	Beginning. Grammar and Reading	133	4
II	Idiomatic Analysis	53	4
III	Classic Dramas	29	3
IV	Scientific Readings	16	4
V	Continuation of Course I. Modern Prose and Plays	117	4
VI	Boileau's Works	33	4
VII	Montaigne	10	3
VIII	Literature of the Romantic School	25	3
XV	Seminary. (Plays: Le Joueur and Les Folies Amoureuses de Regnard; Les Fausses Confidences, L'Epreuve; Les Jeux de L'Amour et du Hasard, Le Legs de (Narivaux), L'Art Poetique de Boileau)	8	4
	II. GERMAN.		
I	Beginners' Course. Whitney's Grammar and Reader	114	4
II	Gœthe (Torquato Tasso)	49	3
III	German Plays	94	4
IV	Lessing (Laokoön)	24	2
V	Minor German Classics (Selections)	50	2
VI	Gœthe (Faust, 1st Part)	46	3
VII	The Niebelungenlied	8	2
IX	Gœthe (Faust, 2d Part)	14	2
X	Gœthe (Goetz von Berlichingen)	52	3
XI	Schiller (Selected Essays)	12	2
XII	German Lyric Poetry, Recitations and Lectures	51	2
XIII	Teachers' Course	14	2
	III. ITALIAN.		
I	Grammar	23	2
II	Grammar and Reading	17	2
	IV. ENGLISH AND RHETORIC.		
I or VII	Composition and Speeches	150	2
II or VIII	Rhetoric; Theory and Practice	80	2

TABLE I.—CONTINUED.

No. of Courses.	SUBJECT.	No. of Students in each Course.	No. of Hours per week.
III	Extemporaneous Speaking	16	2
IV	Anglo Saxon	33	2
V	Early Modern Languages (Chaucer)	65	2
VI	Study of Masterpieces	44	3
IX	Transitional English	18	2
X	Modern English	43	2
XI	Study of Shakespeare	46	3
XIII	Rhetorical Study of Selections in Prose and Poetry	11	2
XIV	The History of the English Drama	29	1
XV	American Literature	13	1
	V. HISTORY.		
I	Political and Constitutional History of England	77	2
II	Guizot's History of Civilization	27	2
III	English History since the Close of Napoleonic Wars	41	3
IV	Seminary	13	1
VII	General History of Continental Europe	63	2
IX	History of England during the Period of Development	72	2
X	Constitutional History of the United States	24	2
XI	Theories and Methods of English Government	86	2
XII	Historical Seminary; United States	22	2
XIV	Constitutional History of the United States	20	2
XV	Political History of the American Colonies to the Close of the Revolutionary War	77	1
XVI	Elements of Constitutional Law	11	2
XVII	History of Political and Social Institutions	57	3
XVIII	Seminary	8	1
XVIIIa	Seminary. Comparative Local and Administrative Methods	1	3
	VI. PHILOSOPHY.		
I	Empirical Psychology	18	2
II	Speculative Philosophy	16	2
III	Formal Logic	115	2
IV	History of Leading Epochs in European Philosophy	42	2
VI	Ethics, Historical and Theoretical	15	2
VII	Seminary. Historical Studies in Ethics	7	2
VIII	Philosophy of the State	7	1
X	History of Philosophy in Great Britain	24	2
XI	Real Logic	6	3
	VII. THE SCIENCE AND ART OF TEACHING.		
I	Practical: Art of Teaching and Governing, etc.	30	4
II	Theoretical and Critical	48	4
III	School Supervision	15	2
IV	Seminary	10	2
V	Historical Development of Educational Systems	10	2
	VIII. POLITICAL ECONOMY.		
I	Elementary Course	48	3
II	Advanced Course	30	2
III	Principles and Methods of Finance	21	2

TABLE I.—CONTINUED.

No. of Courses.	SUBJECT.	No. of Students in each Course.	No. of Hours per week.
	IX. SANITARY AND SOCIAL SCIENCE.		
I	Elementary Course in Sanitary Science	39	2
III	Advanced Course in Sanitary Science	2	7
	X. ADMINISTRATIVE AND INTERNATIONAL LAW.		
I	Lectures on International Law	21	2
II	History of Treaties	12	2
V	Social and Political Rights	31	2
VI	Administrative Law	44	2
	XI. PHYSICAL SCIENCES.		
	I. PHYSICS.		
II	Experimental Lectures and Recitations	23	5
III	Laboratory work for beginners	1	3
IV	" "	1	5
VII	Theoretical Physics	3	2
IX	Advanced Optics	3	2
X	Advanced Physics	26	5
	II. GENERAL CHEMISTRY.		
II	Experimental and General Lectures	50	5
III	Kinetic Theory of Gases; Chemical Philosophy	8	2
IV	Laboratory Methods of Studying Chemistry	7	3
V	" " "	5	5
VI	Gas Analysis	1	3
	III. ANALYTICAL CHEMISTRY.		
I	Qualitative Analysis	24	10
	" "	7	5
II	Advanced Qualitative Analysis	14	4
III	Qualitative Analysis	6	5
Va	Quantitative Analysis	1	7
Va^{1}	" " advanced	12	7
Va^{11}	" " "	5	7
Vb	" "	18	5
VI	Organic Chemistry	5	2
VIII	Physiological Chemistry	12	7
X	Blow-pipe Analysis	11	2
XI	Original Investigations	1	5
XII	Assaying Ores, dry way	11	2
	IV. ASTRONOMY AND METEOROLOGY.		
II	General Astronomy	59	3
III	Spherical Astronomy for Civil Engineers	23	2
IV	Theoretical Astronomy	1	5
V	Modern Meteorology	9	2
VIII	Elementary Practical Course	12	1
X	Advanced do	1	1

TABLE I.—CONTINUED.

No. of Course.	SUBJECT.	No. of Students in each Course.	No. of Hours per week.
	XII. MINERALOGY AND GEOLOGY.		
I	Mineralogy: Short Course	43	2
II	" Long Course	12	5
I	Geology, Part I. Facts and Doctrines	64	2
II	" " Oral Exercises	49	1
III	Advanced Geology and Palæontology	7	2
V	Geology, Part II. Theories	26	1
VI	" " Oral Exercises	11	1
VII	Palæontological Investigations	3	5
IX	Geology of the United States	9	2
X	Comparative Geology	8	2
	XIII. BIOLOGICAL SCIENCES.		
	I. ZOÖLOGY.		
I	Systematic Zoölogy	46	5
II	Invertebrate Zoölogy	8	5
III	Comparative Anatomy and Physiology	36	5
IV	Identification of Vertebrates	15	5
VII	Conchology	3	5
VIII	Advanced Study in Vertebrates	3	5
	II. BOTANY.		
I	Study of Fungi	2	5
II	Pharmaceutical Botany	3	5
II *a*	Advanced "	2	2
III	Structural Botany and Microscopy	14	5
III *a*	Advanced " "	3	5
V	Principles, Methods, and Conclusions of Modern Botanical Investigations, etc., etc.	5	3
VII	Elements of Biology	5	5
VIII	Continuation of Course V.	5	3
IX	Systematic Botany	21	2
	III. HISTOLOGY AND MICROSCOPY.		
II	Laboratory Work	32	1
	XIV. DRAWING.		
I	Geometrical Drawing	54	2
II	Topographical, Lettering and Ornamentation	49	2
IV	Free-Hand Drawing	32	3
V	Descriptive Geometry	43	3
VI	Shades, Shadows, and Perspective	16	3
VII	Advanced Free-Hand Drawing	20	3
VIII	Architectural Water-Color Drawing	1	2
IX	Sketching of Parts of Machines	1	3
XI	Continuation of Course VII, in Free-Hand	4	2
	XV. SURVEYING.		
I	Use of Transit and Level	26	3
II	Compass Surveying; Solar Compass, etc., etc.	26	2
III	Higher Surveying; Plane Table; Sextant, etc.	23	5
IV	Field Work (4 weeks in the field on original work)	.....	Extra

TABLE I.—CONTINUED.

No. of Course.	SUBJECT.	No. of Students in each Course.	No. of Hours per week.
	XVI. ENGINEERING.		
	I. CIVIL ENGINEERING.		
I	Strength and Resistance of Materials	7	2
II	Theory of Construction	7	1
III	Graphics	7	2
III *a*	Advanced Graphics	13	2
IV	Engineering Design	7	6
V	Mechanism and Machine Drawing	14	2
VII	Machine Dynamics	9	1
VIII	Theory of Construction	7	4
IX	Hydraulics, Water-Supply, and Sewerage	7	1
X	Stereotomy	16	2
	II. MECHANICAL ENGINEERING.		
I	Shop-practice in Wood-Work	22	3
II	Forging	18	2
III	Machinery and Machine Drawing	2	2
IV	Shop-practice in Iron Work	14	3
VI	Machinery and Prime Movers	10	3
XII	Shop-practice in Pattern-Work and Foundry Work	12	2
	XVII. METALLURGY.		
I	Fuel and Refractory Materials	18	3
II	Lead, Silver, Gold, Mercury, etc.	14	2
	XVIII. MUSIC.		
I	Science and Practice of Choral Music	12	2
II	Science of Harmony	3	2
III	Science and Practice of Choral Music	5	2
IV	Science of Harmony	1	2
IX	Male Chorus	14	2
XII	Ladies' Chorus	12	2
	XIX. BIBLIOGRAPHY.		
I	Lectures	4	1

Or to reduce the information given in the above table to a brief summary of Subjects and Courses:

	SUBJECT.	No. of Courses.
I.	*The Classics:*	
	Greek	22
	Latin	22
	Sanscrit	3
II.	*Mathematics*	16
III.	*Modern Languages and Literature:*	
	French	95
	German	13
	Italian	3
IV.	*English and Rhetoric*	15
V.	*History*	18
VI.	*Philosophy*	11
VII.	*Science and Art of Teaching*	5
VIII.	*Political Economy*	3
IX.	*Sanitary and Social Science*	3
X.	*Administrative and International Law*	4
XI.	*Physical Sciences:*	
	Physics	10
	General Chemistry	6
	Analytical Chemistry	12
	Astronomy and Meteorology	10
XII.	*Mineralogy and Geology*	10
XIII.	*Biological Sciences:*	
	Zoölogy	8
	Botany	9
	Histology and Microscopy	2
XIV.	*Drawing*	11
XV.	*Surveying*	4
XVI.	*Engineering:*	
	Civil	10
	Mechanical	12
XVII.	*Metallurgy*	2
XVIII.	*Music*	12
XIX.	*Bibliography:*	
	Lectures	1
	Total: Subjects, 19; Courses, full	24

TABLE II.

Showing the amount of Time devoted by the Professors and Instructors of the Academic Department to their University duties in 1883–4.

NAMES.	Subjects, 1st Semester.	Time.	Total.	Subjects, 2d Semester.	Time.	Total.
	I. THE CLASSICS.					
	I. GREEK.					
Prof. M. L. D'Ooge..	Course III., 2 sections	7	.....	Course VII.	4	
	" IV.	2	.....	" X.	1	
	" V.	1	.....	" XIII.	1	
	" XII.	4	14	" XXI.	2	
				" XXII.	2	10
Prof. A. Pattengill..	Course I., 2 sections	8	.....	Course VI., 2 sections..	6	
	" XI.	2	.....	" IX.	2	
	" XIX.	3	.....	" XX.	4	12
	" (?) Memorabilia	1	14			
	II. LATIN.					
Prof. H. S. Frieze....	Course III.	2	.....	Course IX.	3	
	" IV., Antiq. and Art..	2	.....	" XI., Antiq. and Art	2	
	" V.	1	.....	" XIV.	2	
	" XIII.	2	7	" XXI.	1	8
Prof. Elisha Jones..	Course II., 2 sections	8	.....	Course VII.	2	
	" XVI.	2	.....	" VIII., 2 sections	8	
	" XXII.	3	13	" XII.	1	11
Mr. C. M. Gayley.....	Course I., 4 sections	12	.....	Course VI., 4 sections..	16	16
	" XVIII.	2	14			
	III. SANSCRIT.					
Prof. Calvin Thomas	Course I.	2	2	Course II.	2	
				" III.	2	4
	NOTE.—Prof. Thomas is also engaged in teaching German, giving him besides, for 1st Semester	.....	15	For 2d Semester.....	.....	13
	Altogether, for 1st Semester	.....	17	For 2d Semester.....	.....	17
	II. MATHEMATICS.*					
Prof. E. Olney.....	Course II., 2 sections	8	.....	Course VI., 2 sections..	8	
	" III.	5	13	" VII.	3	
			.....	" IX.	3	14
Prof. W. W. Beman.	Course I., 2 sections	8	.....	Course V., 2 sections..	8	
	" XIII.	5	13	" VII.	2	
			.....	" XVI.	5	15
Prof. C. N. Jones....	Course IV.	2	.....	Course XIV.	6	
	" X., 4 sections	8	.....	" XV., 3 sections.	6	
	" XI.	5	.....	" XVIII.	5	17
	" XII., 2 sections	2	17			
	III. MODERN LANGUAGES AND LITERATURES.					
	I. FRENCH.					
Prof. E. L. Walter...	Course III.	3	3	Course VII.	3	3
	NOTE.—Prof. Walter has also courses in German and Italian as follows:					
	a. German.					
	Course II.	3	.....	Course IV.	2	
	" VII.	2	.....	" V.	2	
	" XI.	2	7	" VII. (Offered, but not elected by students)	2	6
	b. Italian.					
	Course I.	2	2	Course II.	2	2
	Altogether, hours engaged—For first Semester.....	.....	12	For 2d Semester.....	.....	11
Mr. P. R. De Pont....	Course I., 2 sections	8	.....	Course V., 2 sections..	8	
	" II., 2 "	8	16	" IV.	4	
				" XV.	4	16
M. Alf. Hennequin..	Course I.	4	.....	Course V.	4	
	" II.	4	8	" VI.	4	
				" VIII.	3	
				" IX., not elected	1	12

*NOTE.—The courses are here indicated as they ought to have been given, but owing to the illness of Prof. Olney in the 2d Semester his work was subdivided between the two assistant professors

TABLE II.—*Continued.*

NAMES.	Subjects, 1st Semester.	Time.	Total.	Subjects, 2d Semester.	Time.	Total.
	LANGUAGES, Etc.—*Continu'd.*					
M. Alf. Hennequin ..	NOTE.—Mr. Hennequin hears also in German, classes in—					
	Course I.	4	4	Course III.	4	4
	Making the total of time employed—					
	For 1st Semester		12	For 2d Semester		16
	II. GERMAN.					
Prof. E. L. Walter..	(See above Note in French.)					
Prof. C. Thomas.....	Course I, 2 sections	8		Course III., 2 sections	8	
	" IX.	2		" VI.	3	
	" X.	3		" XIII.	2	13
	" XII.	2	15			
	NOTE.—Prof. Thomas hears also classes in Sanskrit as follows:					
	1st Semester		2	2d Semester		4
	Making his total number of hours—					
	1st Semester		17	2d Semester		17
M. Alf. Hennequin..	(See above—French.)					
	III. ITALIAN.					
Prof. E. L. Walter...	(See above—French.)					
	IV. ENGLISH AND RHETORIC.					
Prof. I. N. Demmon..	Course IV.	2		Course IX.	2	
	" V., 2 sections	4		" XI., 3 sections	7	
	" VI., 3 sections	7	13	" XIV.	1	
				" XV.	1	11
Prof. B. C. Burt.....	Course I., 4 sections	8		Course III.	2	
	" II.	2		" VII.	2	
	" XIII.	2	12	" VIII., 2 sections	4	
				" X.	2	10
	V. HISTORY.					
Prof. C. K. Adams...	Course III.	3		Course II.	2	
	" IV.	4		" XI.	2	
	" XV.	1		" XVII.	3	
	" XVIII.	3	11	" XVIII.	3	10
Prof. R. Hudson.....	Course I., 2 sections	4		Course IX., 2 sections	4	
	" VII.	2		" XII., 2 "	4	
	" X.	2		" XIV.	2	10
	" XVI.	2	10			
	VI. PHILOSOPHY.					
Prof. Howison.....	Course I.	2				
	" II.	2				
	" III.	2				
	" XI.	2	8			
Prof. G. S. Morris....				Course IV.	2	
				" VI.	2	
				" VII.	2	
				" VIII.	1	
				" X.	2	9
	VII. THE SCIENCE AND ART OF TEACHING.					
Prof. W. H. Payne..	Course I.	4		Course III.	4	
	" II.	2		" IV.	2	6
	" V.	2	8			
	VIII. POLITICAL ECONOMY.					
Prof. H. C. Adams...	Course I.	3				
	" II.	2				
	" III.	2	7			
	IX. SANITARY AND SOCIAL SCIENCE.*					
Dr. V. C. Vaughn.....			9			

* Courses properly belonging to the School of Political Science, given by Professors of the other Departments, but open to literary students.

TABLE II.—*Continued.*

NAMES.	Subjects, 1st Semester.	Time.	Total.	Subjects, 2d Semester.	Time.	Total.
	X. INTERNATIONAL AND ADMINISTRATIVE LAW.					
President J. B. Angell	Course I. International Law	2	2	Course II.	2	2
Judge Cooley	" V.	2	2	" VI.	2	2
	The courses given by Judge Cooley belong also properly to the School of Political Science, but are open to all.					
	XI. PHYSICAL SCIENCES.					
	I. PHYSICS.					
Prof. C. K. Wead	Course II.	5		Courses III., IV., IV.*a*, Laboratory work every day for 2 hours	10	
	" VII.	2				
	" X.	5				
	" VIII., not elected	1	13	Course IX.	2	12
	" XII., Laboratory. (Not elected).			In addition, throughout the year, the time employed in preparing for experiments or taking care of the apparatus.		
	II. GENERAL CHEMISTRY.					
Prof. J. W. Langley	Hears recitations from and delivers lectures to students in the Literary, Pharmacy, Medical and Dental Departments, and is found in the Laboratory through the day. In the Literary Department he delivers lectures in courses II., III., VI., amounting to—					
	1st Semester		3	and 2d Semester		7
	And has in addition Laboratory courses		10			
	III. ANALYTICAL CHEMISTRY.					
Prof. A. B. Prescott	Is found in his office every day when not lecturing. Gives lectures to Pharmacy students as well as Literary, and conducts exercises in Laboratory work.					
	Lectures 1st Semester		7	Lectures 2d Semester		6
Prof. B. Cheaver Prof. O. Johnson	Laboratory work in addition Time employed throughout the year in lectures as well as recitations and Laboratory work at least from 1 to 5 every day		20	From 1 to 6 every day		25
	And in the morning for all lecture work.					
Dr. V. C. Vaughan	Course VIII.		7	Course VIII.*a*		7
	IV. ASTRONOMY.					
Prof. M. W. Harrington			8			7
	And in addition, the duties at the Observatory.					
	XII. MINERALOGY AND GEOLOGY.					
Prof. W. H. Pettee	Lectures		2			7
	And in addition, Laboratory and Museum duties.					
Prof. A. Winchell	Lectures		7			7
	Laboratory work, and Museum duties in addition.					
	XIII. BIOLOGICAL SCIENCES.					
	I. ZOOLOGY.					
Prof. J. B. Steere	Course I.	5		Course III.	5	
	" VII.	5		" IV.	5	
	" VIII.	5	15	" II.	3	13
	Museum duties in addition.					

TABLE II.—*Continued.*

NAMES.	Subjects, 1st Semester.	Time.	Total.	Subjects, 2d Semester.	Time.	Total.
	BIOLOGICAL SCIENCES.—*Con.*					
	II. BOTANY.					
Prof. V. M. Spaulding	Course I.	5	.....	Course VIII.	3	
	" V.	3	.....	" IX.	2	5
	" VII.	2	10			
	Laboratory work in addition.					
Mrs. L. Stowell	Laboratory work, 9-12	.....	15	Laboratory work 1-12	.....	15
	III. PHYSIOLOGY & MICROSCOPY.					
Prof. C. H. Stowell	.....	.....	.....	Histology	.....	1
	The work of the Professor is mainly in the Medical and Pharmacy Department.					
	XIV. DRAWING.					
Prof. C. S. Denison	Every day from 9-12	.....	15	Every day from 9-12	.....	15
	XV. SURVEYING.					
Prof. J. B. Davis	Every morning with parties at work	.....	.....	Every afternoon with parties at work. 4 weeks in the field.		
	In addition Prof. Davis has two courses in Drawing—					
	Geometrical	.....	4	Descriptive Geometry.	.....	6
	XVI. ENGINEERING.					
	I. CIVIL ENGINEERING.					
Prof. C. E. Greene	Lectures	.....	5	Lectures	.....	6
	II. MECHANICAL ENGINEERING.					
Prof. M. E. Cooley	Engaged daily, morning and afternoon in Lectures, or Laboratory or Shop duties.					
	XVIII. MUSIC.					
Mr. C. B. Cady	Course I.	3	.....	Course III.	2	
	" II.	2	.....	" IV.	2	
	" VI., not given	2	.....	" IX.	2	
	" IX.	2	.....	" XI., not given	2	
	" X., not elected	2	.....	" XII.	2	10
	" XII.	2	13			

Table II, it will be observed, is for the most part a simple exhibit for any given week of the semesters, of the time occupied by the several members of the faculty in lectures and recitations; only a *basis* on which to begin a just and proper estimate of their work as a whole! Lessons must be studied, seminaries devised, blackboards prepared, composition papers corrected, exercises conducted in the laboratories, work superintended in the shops, apparatus cared for, museums classified, and observations made day and night in the general interests of science, often the whole night through.

Much additional time must be put to their credit for visits from pupils, for examinations for admission, and degrees; for examinations in the high schools and elsewhere, for the convenience of applicants; for sending out announcements, for references to subjects studied; for attendance on faculty meetings regularly once a week, or as often as circumstances may require; and last, but not least, for making out reports on special subjects by order of the Board of Regents. It may be there are those who have less onerous duty than others, or who make their duties less by devolving something of their full proportion of service on their fellow laborers; but these are the rare exceptions that only prove the general rule. With 17 subjects and 140 text books to be thoroughly mastered; with four *full* courses to be taught, each of them leading to a different degree; with 24 *prescribed* courses for the degree of B. A. or Bache-

lor of Arts; 26 for Bachelor of Letters; 26 for Bachelor of Science; 24 Bachelor of Science (Civil Engineering), and 26 for Bachelor of Philosophy, with two-fifths, three-fifths, four-fifths elective courses, giving ample variety of choice, to be wisely managed and controlled, not too much for health, not too little for indolence, it will be readily seen that the position of professor or instructor under the present University system is no sinecure.

The prevailing spirit of these gentlemen is to do hard work themselves, and get the best and most work out of the students of which they are capable. Otherwise the several committees of the Board are sure to find it out, and give the drones in the busy hive an indefinite leave of absence. If the truth must be told, (and the occasion seems to call for it), without any disparagement to other departments, the Board of Regents are not a little proud of the present teaching force in the Department of Literature, Science, and the Arts. They believe that in extent of literary and scientific attainment and excellence of instruction they cannot be easily surpassed, and of this they want no better evidence than the persistent efforts of rival institutions to take them from us. They are watching the opportunity to repeat the attack so successfully repelled in 1881.

In confirmation of the testimony of the Regents we are happy to refer to the several reports of the visitors appointed by the Superintendent of Public Instruction, especially for the last four years. "We are glad to report," say the visitors of 1881, "the eminent progress and success of the University during the past year. Its facilities are greater. Its systems of study are better organized. We were greatly impressed with the thoroughness, extent and variety of instruction, and especially with the earnesness, enthusiasm, and evidence of faithful work on the part of the students. The standard of scholarship is constantly rising as the aim of making this institution more and more a University proper is reached. Our State may be congratulated that its University is such in something more than name, and that in it so many and varied courses of higher education may be pursued." And to the same purport is the testimony of the visitors, so far as the Board is aware, every year since.

TABLE III,

Showing the Text-Books used in the Various Courses of Instruction.—1883-84.

I. THE CLASSICS.

I. GREEK.

Aristophanes's Clouds.—*Felton.*
" Birds and Plants.—*Green.*
" Frogs.—*Green.*
Demosthenes's De Corona.—*D'Ooge.*
Æschylus's Agamemnon.—*Sidgwick.*
Euripides's Medea.—*Allen.*
Herodotus.—*Keep.*
Homer's Odyssey.—*Merrey.*
Lysias.—*Stevens.*
Moods and Tenses.—*Goodwin.*
Pindar's Odes.—*Seymour.*
Plato's Crito.—*Tyler.*
" Gorgias.—*Woolsey.*
Sophocles's Antigone.—*Woolsey.*
" Electra.—*Jebb.*
Xenophon's Memorabilia.—*Winans.*

II. LATIN.

Catullus.—*Simpson.*
Cicero's Brutus.—*Text of Teubner or Tauchnitz.*
" De Senectute, De Amicitia.—*Allen and Greenough.*
Horace.—*Chase and Stewart.*
Juvenal.— "
Nepos.—*Oscar Browning.*
Persius.—*Clarendon Press.*
Pliny's Letters.—*Text of Teubner or Tauchnitz.*
Propertius.—*Crowell.*
Quintillian.—*Frieze.*
Seneca.—*Text of Teubner.*
Tacitus.—*Frieze.*
Tibullus.—*Crowell.*
Terence.—*Chase and Stewart.*
Virgil.—*Frieze.*

III. SANSKRIT.

Grammar.—*Whitney.* | Reader.—*Lanman.*

II. MATHEMATICS.

Algebra.—
Geometry.—
Trignometry.—
General Geometry and Calculus.—
Calculus.—*Courtenay.*
} *Olney.*

Geometry with three dimensions.—*Aldis.*
Determinants.—*Dostor.*
Differential and Integral.—*Price.*
Analytical Mechanics.—*Minchen.*

III. MODERN LANGUAGES AND LITERATURES.

I. FRENCH.

Grammar.—*Hennequin's Duffet.*
French Verbs.—
Idiomatic Composition.—
Reader.—
} *Hennequin.*
Corneille's Le Cid.—*Hachette.*
Corneille's Cinna.—*Hachette.*
Victor Hugo's Ruy Blas, and Hernani.
La Nature; Scientific periodical.—*Tissandie et Masson.*
Theuriet's La Chanson de Jardinier.—*N. Cyr.*
Wafflard's Le Voyage á Dieppe.— ———
Erkmann-Chatrian's Madam Thérese.—*C. Levy.*

Boileau's Art Poetique, and Satires.—*Hachette and Delalain fres.*
E. Angièr's Le Fils de Giboyer.—*C. Levy.*
V. Sardou's Seraphine.— "
Marivaux's Theatre choisi.—*Jonaust.*
Regnard's Le Joueur, and Les Folies Amoureuses.—*Bibliothèque Nationale.*
Montaigne's Essais.—*Hachette.*
Moliere's Tartuffe.—*Delagrane.*
" Le Medecin Malgre lui.—*Hachette.*
Racine's Phèdre.—*Delagrane.*

II. GERMAN.

Grammar.—*Whitney.*
Gœthe's Tasso, and Faust.—*J. M. Hart; K. J. Schröer.*
Gœthe's Gutz von Berlichingen,—*E. Fasnacht.*

Lessing's Laokoon.—*Clarendon Press.*
Minor Classics. Selections.— "
Selected Plays.— "
The Niebelungenlied.—*Zarncke.*
Schiller's Selected Essays.—*Hempel.*

III.—ITALIAN.

Grammar.—*Cuore.* | I promesi Sposi; Reader.

IV. ENGLISH AND RHETORIC.

Composition; How to Write Clearly.—*Abbott.*
Science of Rhetoric.—*Hill.*
Anglo Saxon Reader.—*Sweet.*
Chaucer's Prologue, and Knight's Tale.—*Morris.*

Manual of English Literature.—*Morley and Tyler.*
Handbook of English Authors.—*Underwood.*
Practical Elocution.—*Shoemaker.*

V. HISTORY.

Guizot's History of Civilization.
History of the United States.—*Von Holst.*

Elements of Constitutional Law.—*Cooley.*

VI. PHILOSOPHY.

Empirical Psychology.—*Jardine.*
Formal Logic.—*Fowler.*
Real Logic; References; Mill's Logic.

Real Logic; Science of Thought.—*Everett*
" Logic of Hegel.—*Wallace.*

VII. THE SCIENCE AND ART OF TEACHING.

Lectures on Teaching.—*Fitch.*
Chapters on School Supervision.—*Payne.*

Outlines of Educational Doctrines.—*Payne.*

VIII. POLITICAL ECONOMY.

Reference Book: Principles of Political Economy.—*John Stuart Mill.*

IX. PHYSICAL SCIENCES.

I. PHYSICS.

Physics.—*Everett's Deschanel.*
" *Atkinson's Ganot.*
Elements of Physical Manipulation.—*Pickering.*

II. CHEMISTRY.

Chemistry.—*Everett's Deschanel.*
Introduction to Inorganic Chemistry.—*Miller, or Roscoe, or Schorlemmer.*
Chemical Experimentation.—*Sadler.*
Manual of Chemistry.—*Eliot Storer.*
Qualitative Chemical Analysis.—*Douglas and Prescott.*
Organic Chemistry.—*Pinner.*
Quantitative Analysis.—*Fresenius, Classen, etc.*
Proximate Organic Analysis.—*Prescott.*
Determinative Mineralogy.—*Brush.*
Assaying.—*Rickett, Mitchell, etc.*
Volumetric Analysis.—*Sutton.*
Physiological Chemistry.—*Vaughn.*

III. ASTRONOMY.

Theoretical Astronomy.—*Watson.*

X. MINERALOGY AND GEOLOGY.

Syllabus with References.—*Winchell.*
Manual of Geology.—*Dana,*
Text Book of Geology.—*Lecomte.*
Text Book of Mineralogy, } Manual of Mineralogy and Lithology, } —*Dana.*

XI. BIOLOGICAL SCIENCES.

Key to N. A. Birds.—*Coues.*
Manual of Vertebrates.—*Jordan.*
Zoölogy.—*Packard.*
Anatomy of Vertebrates.—*Owen.*
Skeleton and Teeth.—*Owen.*
Manual of Mollusca.—*Woodward.*
Physiology and Microscopy.—*Stowell.*

All these books are mainly for reference. Other authors are also consulted in the Library.

XII. DRAWING.

Letter Book.—*Copley.*
Topography.—*Smith.*
Fortification and Stereotomy.—*Mahan.*
Descriptive Geometry.—*Church.*
Shades, Shadows, and Perspective.—*Warren.*

XIV. ENGINEERING.

Civil Engineering.—*Rankine.*
Graphics: I, II, III.—*Greene.*
Field Book for Engineers.—*Henck.*
Steam Engine.—*Rankine.*
Mechanical Manipulations.—*Holtzapfel.*
Workshop Appliances.—*Shelley.*
Casting and Founding.—*Spretson.*
Machinery and Mill Work.—*Rankine.*
Mechanics of Engineering.—*Weisbach.*
Dictionnaire des Mathématiques Appliquées.—*Sonnet.*
Elements of Machine Design.—*Unwin.*

From the foregoing table it will appear that most of these text books are standard books of well-known editions and by scholarly authors. There are some whose names are quite familiar, but this does not diminish the value of such works as Virgil, by Professor Frieze; Demosthenes, by Professor D'Ooge; and Professor Cooley on Constitutional Law. Other things being equal, it has always been the desire of the Regents, both in men and books, to secure as much variety as possible. No complaint has been made to them of any volume in the present selection, and if for any good reason it should be made, such complaint will be duly attended to. There is still abundant room for choice.

Still further in accordance with the recent statute, the Board will now submit a table in which will be found the names, titles, and salaries of these professors and their assistants, the number of students under their care, and the total receipts and expenditures in this department.

TABLE IV.

DEPARTMENT OF LITERATURE, SCIENCE, AND THE ARTS.

FACULTY.

	Salaries.
James B. Angell, LL. D., President	$3,750 00
Henry S. Frieze, Professor of the Latin Language and Literature	2,400 00
Hon. Thomas M. Cooley, LL. D., Professor of Law, and Professor of Constitutional and Administrative Law in the School of Political Science	2,500 00
Edward Olney, LL. D., Professor of Mathematics	2,200 00
Charles K. Adams, LL. D., Professor of History	2,500 00
Albert B. Prescott, M. D., Professor of Organic and Applied Chemistry and Pharmacy	2,200 00
Rev. Martin L. D'Ooge, Ph. D., Professor of the Greek Language and Literature	2,200 00
Charles E. Greene, A. M., C. E., Professor of Civil Engineering	2,200 00
Edward S. Dunster, A. M., M. D., Social Science	2,200 00
Wm. H. Pettee, A. M., Professor of Mineralogy, Economic Geology, and Mining Engineering	2,200 00
John W. Langley, S. B., M. D., Professor of General Chemistry	2,200 00
Mark W. Harrington, A. M., Professor of Astronomy and Director of the Observatory	2,200 00
Joseph B. Steere, Ph. D., Professor of Zoölogy	2,200 00
Edward L. Walter, Ph. D., Professor of Modern Languages and Literatures	2,200 00
Alexander Winchell, LL. D., Professor of Geology and Palæontology	2,200 00
William H. Payne, A. M., Professor of the Science and Art of Teaching	2,200 00
Isaac N. Demmon, A. M., Professor of English and Rhetoric	2,200 00
George S. Morris, Ph. D., Professor of Ethics, History of Philosophy and Logic (for one-half year)	1,100 00
Elisha Jones, A. M., Associate Professor of Latin	1,800 00
Albert H. Pattengill, A. M., Associate Professor of Greek	1,800 00
Mortimer E. Cooley, Assistant Engineer U. S. N., Professor of Mechanical Engineering	
Wooster W. Beman, A. M., Associate Professor of Mathematics	1,800 00
Victor C. Vaughan, Ph. D., M. D., Professor of Physiological and Pathological Chemistry, and Associate Professor of Therepeutics and Materia Medica	1,600 00
Charles H. Stowell, M. D., Professor of Histology and Microscopy	1,500 00
Charles K. Wead, A. M., Acting Professor of Physics	1,600 00
Byron W. Cheever, A. M., M. D., Acting Professor of Metallurgy	1,600 00
Volney M. Spalding, A. B., Acting Professor of Botany	1,600 00
Joseph B. Davis, C. E., Assistant Professor of Civil Engineering	1,600 00
Charles N. Jones, A. B., Assistant Professor of Mathematics	1,600 00
Richard Hudson, A. M., Assistant Professor of History	1,600 00
Otis C. Johnson, Ph. C., A. M., Assistant Professor of Applied Chemistry	1,600 00
Benjamin C. Burt, A. M., Assistant Professor of English and Rhetoric	1,600 00
Calvin Thomas, A. M., Assistant Professor of German and Sanskrit	1,600 00
Charles S. Denison, M. S., C. E., Assistant Professor of Mechanical and Free Hand Drawing	1,500 00
Henry C. Adams, Ph. D., Lecturer on Political Economy (one-half year)	1,100 00
George H. Howison, LL. D., Lecturer on Psychology and Speculative Philosophy (one-half year)	1,100 00
P. R. B. DePont, A. B., B. S., Instructor in French (Secretary]	1,400 00
Alfred Hennequin, Ph. D., Instructor in French and German	1,000 00
Calvin B. Cady, Instructor in Music	900 00
Charles M. Gayley, A. B., Instructor in Latin	900 00
Louisa Reed Stowell, M. S.	750 00

For full memoranda touching the question of salaries from June 6, 1837, to July 25, 1879, see minutes of October meeting, 1883, pp.417–421.

DEGREES CONFERRED IN 1884.

Bachelor of Letters	10
" " Science	5
" " " (Civil Engineering)	2
" " Philosophy	14
" " Arts	52
Master of Science	3
" " Philosophy	1
" " Arts	13
Doctor of Philosophy	2
Total	102

STUDENTS, 1883-84.

Resident Graduates	19
Candidates for a Degree	423
Students not candidates for a Degree	97
Total	539
Number of Women	117

SCHOOL OF POLITICAL SCIENCE.

CORPS OF INSTRUCTORS.

James B. Angell, LL. D., President; International Law and the History of Diplomacy.
Thomas M. Cooley, LL. D., Constitutional Law and Administrative Law.
Charles K. Adams, LL. D., Political and Constitutional History.
Edward S. Dunster, A. M., M. D., Social Science.
William H. Payne, A. M., Historical Development of Educational Systems.
George S. Morris, Ph. D., Political Ethics and the History of Political Philosophy.
Henry C. Adams, Ph. D., Political Economy, Finance and Statistics.
Richard Hudson, A. M., History and Constitutional Law.
Victor C. Vaughan, Ph. D., M. D., Sanitary Science.

DEPARTMENT OF LAW.

FACULTY.

	Salary.
James B. Angell, LL. D., President.	
Hon. James V. Campbell, LL. D., Marshall Professor of Law	$2,200
Hon. Thomas M. Cooley, LL. D., Jay Professor of Law.	
Charles A. Kent, A. M., Dean	2,200
William P. Wells, A. M., Kent Professor of Law	2,200
Henry Wade Rogers, A M., Tappan Professor of Law	2,200

After long deliberation the Board of Regents were fully convinced that more time was needed in this department for lectures and drilling, and ordered the extension of the term to nine months. Some embarassment has been experienced in carrying their decision into effect, but it has been only one of several others arising from the want of adequate means to pay salaries. The change meets with so much favor that the Board cannot but hope that it will be permanent. The retirement of Hon. Thomas M. Cooley from the professorship he has so ably filled for five and twenty years, was met by a resolution of sincere regret adopted by the full vote of the Board.

At the meeting in October, H. B. Hutchins, Ph. B., was unanimously elected to the vacant chair, at a salary of $2,200.

STUDENTS.

Seniors	128
Juniors	177—305

DEGREES CONFERRED.

Bachelors of Law	134

DEPARTMENT OF MEDICINE AND SURGERY.

FACULTY.

	Salary.
James B. Angell, LL. D., President.	
Alonzo B. Palmer, M. D., LL. D., Professor of Pathology and the Practice of Medicine and Clinical Medicine	$2,200
Coryden L. Ford, M. D., LL. D., Professor of Anatomy and Physiology	2,200
Albert B. Prescott, M. D., Professor of Organic and Applied Chemistry and Pharmacy	2,200
George E. Frothingham, M. D., Professor of Materia Medica, Ophthalmic and Aural Surgery and Clinical Opthalmology	2,200
Edward S. Dunster, A. M., M. D., Professor of Obstetrics and Diseases of Women and Children and Clinical Gynæcology	2,200
John W. Langley, S. B., M. D., Professor General Chemistry	2,200
William J. Herdman, Ph. B., M. D., Professor of Practical and Pathological Anatomy and Demonstrator of Anatomy	1,800
Victor C. Vaughan, Ph. D., M. D., Professor of Physiological and Pathological Chemistry and Associate Professor of Therapeutics and Materia Medica	1,600
Charles H. Stowell, M. D., Professor of Histology and Microscopy	1,500
Henry Sewell, A. M., M. D., Professor of Physiology	2,200
George A. Hendricks, M. D., Instructor in Anatomy	800
George F. Heath, M. D., Resident Physician and Surgeon in the University Hospital	550
T. J. Sullivan, M. D., Assistant to the Professor of Obstetrics and Diseases of Women and Children and Clinical Gynæcology	200
Charles P. Pengra, M. D., Ph. C., Assistant in the Chemical Laboratory	130
Lena C. Leland, M. D., Assistant Demonstrator of Anatomy	150
Arthur L. Greene, Ph. C., Assistant in Pharmacy	500
Hugo Lupinsky, Ph. C., M. D., Assistant Demonstrator of Anatomy	300
Osborne F. Chadbourne, M. D., Assistant to the Professor of Pathology and the Practice of Medicine and Clinical Medicine and Secretary of Faculty	400
James N. Martin, Ph. M., M. D., Assistant to the Professor of Surgery and Clinical Surgery	200
Charles M. Frye, M. D., Assistant to Professor Frothingham	200
Arthur G. Oven, A. M., M. D., Ward Master	300
Wm. A. Campbell, M. D., Assistant in Microscopy and General Histology	300
David W. Steiner, Assistant to the Professor of Physiology	200

NUMBER OF STUDENTS, 1883-84.

Resident Graduates	4	
Third Year Students	90	
Second Year Students	109	
First Year Students	129	—332

DEGREES CONFERRED.

Doctors of Medicine	85

Of the professional schools, the Department of Law has hitherto taken the lead in the number of students.

The last year the majority is with the Department of Medicine and Surgery.

HOMŒOPATHIC SCHOOL OF MEDICINE.

FACULTY.

	Salary.
James B. Angell, LL. D., President.	
Henry L. Obetz, M. D., Professor of Surgery and Clinical Surgery	$2,200
Thomas P. Wilson, M. D., Professor of the Principles and Practice of Medicine, Opthalmology, and Otology (Dean)	2,300
Henry C. Allen, M. D., Lecturer on Materia Medica, Pharmacology and Clinical Medicine	1,650
Newton Baldwin, M. D., Lecturer on Obstetrics and Diseases of Women and Children	1,600
Wm. H. Davis, M. D., Resident Surgeon	400
Henry C. Kasselmann, M. D., Assistant to the Professor of Surgery and Clinical Surgery	100
Elmer J. Bissell, M. D., Assistant to the Professor of the Principles and Practice of Medicine, Opthalmology, and Otology	100

STUDENTS, 1883-1884.

Total in the College	57

DEGREES CONFERRED.

Doctors of Medicine	19

What was said by the President in his annual report to the Regents in 1883 might with equal propriety be repeated for the year 1884:

"The school has not thus far secured the attendance which was expected by its friends, although it has been treated generously by the Legislature, and cared for with the greatest attention by the Regents. The fact is due partly to the competition of schools which bestow degrees on the completion of a much shorter course than ours, and partly, it must be confessed, from the unfriendly attitude of some who ought to be the friends of a Michigan school. The Regents can do no more than to administer in good faith, as they have done, the trust confided to them by the Legislature." It was hoped that the establishment of a new chair would strengthen the school, but unless the homœopathic physicians of the State, at whose urgent solicitation the school has been founded and supported by the Legislature, generally give it their aid, it cannot in the highest degree accomplish the purpose for which it was organized. Thus far, the Regents regret to say, its relation as a branch of the University to its parent trunk is structural rather than vital, and such a union cannot long continue.

COLLEGE OF DENTAL SURGERY.

FACULTY.

	Salary.
James B. Angell, LL. D., President.	
Jonathan Taft, M. D., D. D. S., Professor of the Principles and Practice of Operative Dentistry	$1,700
John A. Watling, D. D. S., Professor of Clinical and Mechanical Dentistry	1,600
Wm. H. Dorrance, M. D., Professor of Prosthetic Dentistry and Dental Metallurgy	1,600
Margaret Humphreys, D. D. S., Assistant to the Professor of Clinical Dentistry	400
Calvin S. Case, D. D. S., Assistant in Prosthetic Dentistry	600

STUDENTS.

Total in the College	67

DEGREES CONFERRED.

Doctors of Dental Surgery	25

SCHOOL OF PHARMACY.

FACULTY.

	Salary.
James B. Angell, LL. D.	
Albert B. Prescott, M. D., Dean, Professor of Organic and Applied Chemistry and Pharmacy	$2,200
George E. Frothingham, M. D., Professor of Materia Medica, etc., etc.	2,200
Wm. H. Pettee, Professor of Mining Engineering	2,200
John W. Langley, S. B., M. D., Professor of General Chemistry	2,200
Byron W. Cheever, A. M., M. D., Acting Professor of Metallurgy	1,600
Volney M. Spalding, A. B., Acting Professor of Botany	1,600
Otis C. Johnson, Ph. C., M. D., Assistant Professor of Applied Chemistry	1,600
Victor C. Vaughan, Ph. D., M. D., Professor of Physiological and Pathological Chemistry and Associate Professor of Therapeutics and Materia Medica	1,600
Theodore John Wramplemeyer, Ph. C., A. B., Instructor in Analytical Chemistry	900
Louisa Reed Stowell, M. S., Assistant in Microscopical Botany	750
Lucius L. Van Slyke, Ph. D., Assistant in Qualitative Chemistry	500

"This school has been raising its standard of admission and grade of work until now it stands at the head of such schools in this country. It has about as many students as it can accommodate. The aim of its faculty has been, by increasing the requirements of admission, to elevate the work rather than to enlarge the classes."—President's Report to Regents.

NUMBER OF STUDENTS.

Resident Graduates	2
Second Year Students	41
First Year Students	34—77

DEGREES CONFERRED.

Pharmaceutical Chemists	38

In addition to those already given the Board would call particular attention to a series of very important tables, prepared by Professor Pettee, at the request of the Auditing Board, and after being heard by the Board of Regents, were ordered by them to be prepared for publication, and printed in the proceedings of their adjourned meeting, July, 1884. The whole paper may be styled "A Study of the Condition of the General Fund of the University," and to this extent makes a full and fair exhibit of the real condition of the institution, required by law, as no other report could do.

Table I. Receipts on account of University interest from 1869 to 1883.
Table II. Receipts on account of 1-20 mill tax from 1874 to 1883.
Table III. Showing the condition of the general fund from 1869 to 1883.
Table IV. In State aid fund and reserve fund.
Table V. Receipts from students' fees from 1869 to 1883.
Table VI. Salary and current expense accounts from 1869 to 1883.

PROFESSOR PETTEE'S REPORT.

To the Honorable Board of Regents:

In the year 1882, and again in 1883, at the request of Regent S. S. Walker, Chairman of the Finance Committee, I assisted in examining the books and accounts of the Treasurer and the Steward, and in checking the stubs and vouchers. While engaged in that work my attention was directed more strongly than ever before to the fact, that, inasmuch as the financial year now closes at a date (September 30) when a considerable part of the fees from students for the ensuing year has been paid into the treasury, while at the same time a quarter's salary belonging to the current year remains unpaid, the cash balance in the Treasurer's hands at the close of business on September 30 gives only a partial idea of the true condition of the University funds.

A few days ago the subject was again brought to my notice, and I began an examination of the printed proceedings of the Board of Regents, in hope of ascertaining something more definite in regard to the point referred to above. The inquiry has carried me farther than I anticipated and has resulted in my getting together a number of tables, which, at the request of the Auditing Board, with whose advice and coöperation the work of preparing the tables has all been done, I now beg leave to explain and to submit for inspection.

At the outset let me say that these tables are not to be looked upon as furnishing a complete exhibit of the financial affairs of the University, even for the years they cover. For example, the condition of the "special accounts" is left entirely out of consideration. By "special accounts" are meant those that relate to the receipt and disbursement of moneys appropriated by the State Legislature for specific purposes connected with the management of the University. Such accounts are in their nature extraordinary, being available

only for the special purpose designated in each case, and affecting only incidentally the finances of the University as a whole.

Neither has an absolutely exhaustive treatment of the condition of the "general fund" been attempted. There are always a few bills falling due near the end of September that do not get paid until after the first of October, and consequently are not included in the financial report of the year. The precise amount of such outstanding indebtedness at the close of previous years cannot now be ascertained; but as the sums involved are known to be usually small in amount, it is reasonable to assume that no material change in figures has resulted from not taking these items into account. The final balances, as given in the tables that follow, I am confident are close enough to the truth, for all present practical purposes, and for showing the changes in the financial condition from year to year.

In order to exhibit the real condition of the general fund at the close of any fiscal year, it is obvious that the balance of cash in the treasury at that time to the credit of that fund ought to be increased by all sums that are due, and at the same time diminished both by the amount of outstanding loans and other forms of indebtedness chargeable to that fund, and by the sums that have been collected in advance from students in payment of fees for the coming year.

There are, therefore, two important questions to be considered: (1) Whether in the several financial reports that have been presented to the Board the balance to the credit of the general fund has included all that properly belonged to the fund at the time the reports were made; and (2) whether the fund has been charged with the amount of indebtedness outstanding, and with the fees that have been collected in advance.

I. The answer to the first question depends entirely on the time when the quarterly remittances from the State Treasurer in payment of University Interest, and of the proceeds of the 1-20-mill tax, reached the University. There are no other sources of income that need to be taken into account in this connection.

The University Interest.

(*a*) The amount due the University each year from this source is about $38,000; and it appears that, as a rule, the quarterly payments have been made either a few days before or a few days after the end of a quarter. In consequence of this lack of uniformity in date of payment, the University has received, sometimes three, sometimes four, and sometimes five quarters of interest within the year covered by the Finance Committee's report. The amounts received for a quarter have varied from $8,000 or less to $13,000 or more. On the treasurer's books, however, there is nothing to show whether any particular payment was properly available for the expenses of the quarter in which it was received or for those of some other quarter, and I was obliged to trace the records back as far as the year 1869, before finding a date to serve as a starting point. In the volume of Regents' Proceedings for 1864–70, page 371, the report of the Finance Committee for the year ending June 30, 1869, states that the University Interest is "fully paid this year," the amount received during the year having been "about $10,000 in excess of the *annual* interest on the fund, being about the sum *usually* remaining in the State treasury at the close of the fiscal year." The receipts from this source since the year 1869, are shown in Table I. In 1880 the end of the fiscal year was changed from June 30 to September 30.

TABLE I.—*Receipts on Account of University Interest from 1869 to 1883.*

For the Year Ending	Amount Received.	Remarks.	Where Reported in Proceedings.
June 30, 1870	$30,000 00	Apparently one quarter in arrears	P. 55
" " 1871	46,657 95	" fully paid	P. 152
" " 1872	38,350 00	" " "	P. 246
" " 1873	38,667 00	" " "	P. 314
" " 1874	38,014 00	" " "	P. 401
" " 1875	38,650 00	" " "	P. 472
" " 1876	38,427 23	" " "	P. 73
" " 1877	24,774 40	" one quarter in arrears	P. 170
" " 1878	38,596 96	" " " "	P. 291
" " 1879	39,226 68	" " " "	P. 426
Sept. 30, 1880	51,451 78	" " " " (5 quarters)	P. 592
" " 1881	38,531 59	" " " "	P. 127
" " 1882	38,398 47	" " " "	P. 281
" " 1883	47,257 58	" fully paid	P. 405

From the table it appears that at the end of the fiscal year 1869–70, and at the end of each fiscal year from 1877 to 1882, inclusive, there was always one quarter's interest due. The amount received in the first quarter of the following year may be regarded as the sum to be placed to the credit of the general fund in each case. These amounts, except for the year 1870, I have taken from the printed proceedings or from the records in the treasurer's office, and have made use of them in Table III. The amount for 1870 has been estimated at $8,000, in order to bring the year's receipts from this source up to about the average amount.

The 1-20-mill Tax.

(*b*) The receipts from this source began in the year 1874, as the result of the act passed by the Legislature in 1873. From 1874 to 1881, inclusive (eight years), the receipts for each *calendar year* should have been $31,500; since 1881, $40,500. The actual receipts for each *fiscal year* down to September 30, 1883, are shown in Table II.

TABLE II.—*Receipts on Account of 1-20 Mill Tax, from 1874 to 1883.*

For the Year Ending	Amount Received.	Remarks.
June 30, 1874	$15,000 00	Two quarters, fully paid.
" " 1875	31,500 00	Four " " "
" " 1876	31,500 00	" " " "
" " 1877	23,625 00	Three quarters, one quarter in arrears.
" " 1878	31,500 00	Four " " " "
" " 1879	31,500 00	" " " " "
Sept. 30, 1880	47,250 00	Six " fully paid.
" " 1881	31,500 00	Four " " "
" " 1882	38,250 00	" " " "
" " 1883	40,500 00	" " " "

The table shows that in the years 1877, 1878, and 1879, the general fund had properly to its credit, each year, an additional quarter's receipts on account of the 1-20-mill tax. The proper sum will be found credited to the fund in Table III.

II. Turning to the second of the two branches of inquiry, it is necessary to ascertain the amount of indebtedness at the close of each fiscal year, and the amount of fees collected in advance.

Outstanding Indebtedness.

(*a*). Leaving out of account, as previously stated, the smaller items of incidental expenses, the amount of which cannot now be accurately ascertained, the only two items of importance are *loans*, and *pay-rolls* for salaries already due and payable on the first day of the following fiscal year. Detailed information on these points has been obtained, except for the years 1874, 1875, and 1878. In 1874 and 1875, it is probable that the salaries were paid before the accounts for the year were closed. For 1878 I have estimated the amount due as $16,400. In 1876 and in 1877, the Finance Committee did not report separately the special and the general pay-rolls; but, with the aid of the stubs in the warrant book, I have ascertained very closely the amounts belonging to each. The sums properly chargeable to the general fund are given in Table III.

Fees Collected in Advance.

(*b*). The practice of collecting fees in advance began in the year 1880, when the date of the close of the fiscal year was changed from June 30 to September 30. It is well known that students begin to register and to pay their fees for the ensuing year early in July, and that they come in large numbers in the last few days of September. The sums received from this source are given in Table III. By way of explanation of the relative smallness of the sums collected in 1880 and in 1881, it may be said that in those years the Treasurer closed his accounts on September 22d and September 27th, respectively, in order to get time for the preparation of his quarterly report, complete in form, by September 30. The actual receipts of the last few days of September were reported as belonging to the next quarter. In 1882 and 1883, the accounts were kept open until the last day of the quarter. For the last two years a deduction has been made from the gross receipts, on account of small sums refunded to students.

Table III, page 475, has been constructed to show the condition of the general fund in the several years from 1869 to 1883, after the cash balances on hand, as reported by the Finance Committees, have been modified in accordance with the principles above set forth. A few of the entries need a word of explanation. Prior to the year 1875 it does not appear that there were any "special" accounts to be treated apart from the general fund, and the balance on hand at the end of each year has accordingly been credited to that fund. For the years 1876, 1877, and 1878, the reports do not distinguish so sharply between the two classes of accounts as it has been the custom to do since 1878. The report for 1876 gives the total balance on hand as $24,046.34, but it also contains the data for ascertaining that the sum of $5,806.52 still stood to the credit of "special" accounts. The difference between the two sums I have taken as the balance in the general fund.

The deficits for 1877 and 1878 were ascertained by comparing the reports for different years, as follows. In the volume of Regents' Proceedings for 1876–81, page 429, an analysis of the balance on hand June 30, 1878, shows that the special accounts had to their net credit $13,814.13 (being the difference between credit and debit balances), and that the General Fund was overdrawn $3,702.24. In the same volume, page 293, the excess of receipts over disbursements in the special accounts for the year 1877–78, is given as $11,061.14. The difference, $2,752.99, was, therefore, the amount of the special balances, June 30, 1877; and, as the actual cash balance of that day was only $156.17, the general fund must have been overdrawn $2,596.82, the amount adopted for use in the table.

TABLE III.—*Showing the Condition of the General Fund from 1869 to 1883.*

For the Fiscal Year ending	Balance shown by Reports of Finance Committee.		Due from the State Treasurer on Account of		Outstanding Indebtedness.		Fees Collected in Advance.	Corrected Balance.	
	Surplus.	Deficit.	Interest.	1-20th Mill Tax.	Loans and Warrants.	Pay Roll.		Surplus.	Deficit.
June 30:									
1869	$21,667 04				$1,150 00	$2,293 75		$11,223 29	
1870	14,798 27		$8,000 00			11,162 50		11,635 77	
1871	24,649 08					9,687 50		14,961 58	
1872	19,400 21				557 56	14,828 83		4,013 82	
1873	17,051 71					15,262 50		1,789 21	
1874	4,410 75				13,000 00				$8,589 25
1875	2,294 11				3,500 00				1,205 89
1876	18,239 82				13,500 00	15,583 32			10,843 50
1877		$2,596 82	13,410 01	$7,875 00	17,000 00	16,218 75			14,530 56
1878		3,702 24	8,446 47	7,875 00		16,400 00			3,780 77
1879	12,565 44		9,084 93	7,875 00		16,650 00		12,875 37	
Sept. 30:									
1880	13,262 74		8,602 05			22,112 50	$15,672 00		15,919 71
1881		665 71	8,621 74			22,927 75	15,951 00		30,922 72
1882	13,676 80		8,548 60			25,517 50	36,324 75		39,616 85
1883	26,050 69				4,000 00	25,712 50	33,915 00		37,576 81

With the preparation of Table III. the inquiry I first engaged in may be regarded as completed; but the table itself has suggested additional questions, and I have been led to pursue the subject a little farther.

An inspection of the last columns of the table shows that since 1873 the general fund has been in arrears every year but one, and that the deficit has increased very rapidly since 1879. A portion of this deficit, however, especially in recent years, is more apparent than real; for it must always have been the case that extensive purchases of fuel, laboratory supplies, and other appliances for use in the year to follow, were made before the opening of the college year in the fall, and the cost of these, if known, might properly be deducted from the debit balances in the table, at least, since 1880.

Without attempting to trace out in detail the causes of all the changes in the fund from year to year, it will be worth while to examine whether there is any simple and easy explanation to be found for some of the most marked of these changes. In comparing the earlier years with the later, for example, account must be taken of the fact that the Board of Regents from 1869 to 1874 had control of the expenditure of other moneys than those belonging to the general fund. Table IV. shows how rapidly two such funds were expended. The "reserve fund" represented the proceeds of the sale of real estate belonging to the University in Detroit. The State aid fund does not appear in the reports after 1872; nor the reserve fund after 1874.

TABLE IV.—*Balances in State Aid Fund and Reserve Fund.*

For Fiscal Year Ending	State Aid Fund.	Reserve Fund.
June 30, 1869	$21,330 77	$17,166 00
" " 1870	7,988 29	17,873 00
" " 1871	3,521 49	19,247 88
" " 1872	1,730 25	19,260 00
" " 1873		21,382 67
" " 1874		9,000 00

Considering the series of years as a whole, an increasing deficit in the general fund indicates that the income has not kept pace with the outgo; and this leads to an inquiry into the receipts and expeditures from year to year. From Tables I. and II. it will be seen that the income from University Interest has been practically constant since 1869, and that the proceeds of the 1-20 mill tax since 1881 have been $9,000 a year more than they were previous to that date. The only other regular and important revenue is drawn from fees paid by students. With increasing numbers of students, the receipts from fees have increased, and the average amount paid into the treasury by each student has also increased. How extensive and how rapid this increase has been will be seen by an inspection of Table V.

In this table the column of gross receipts has been made up directly from reports of finance committees down to 1879. For the four following years, the reported sums have been corrected so as to eliminate the effect of the advance fees collected between June and October. For the last two years, the sums refunded to students during the year have also been deducted. The figures showing the number of students in attendance have been taken directly from the calendar for each year; they differ slightly from the figures given for a part of the same time in a report on page 266 of the volume of Regents' Proceedings for 1876–81.

TABLE V.—*Receipts from Students' Fees, 1869 to 1883.*

For Fiscal Year Ending	Receipts.	Number of Students in Attendance.	Average Payment.
June 30, 1869	$22,009 00	1114	$19 75
" " 1870	22,039 04	1112	19 82
" " 1871	22,010 00	1110	19 83
" " 1872	22,905 00	1207	18 98
" " 1873	23,005 00	1163	19 78
" " 1874	20,210 00	1105	18 29
" " 1875	29,255 00	1191	24 57
" " 1876	29,800 00	1127	26 44
" " 1877	34,570 00	1110	31 14
" " 1878	47,335 00	1230	38 48
" " 1879	58,256 82	1372	42 46
Sept. 30, 1880	61,035 93	1427	42 77
" " 1881	62,466 13	1534	40 72
" " 1882	65,597 35	1534	42 11
" " 1883	69,097 15	1440	47 98

Tables I., II., and V. show that there has been on the whole in recent years a gradual increase of receipts to the credit of the general fund. The increasing deficiency in the fund must, therefore, be explained by a more rapid increase of expenses. The charges against the fund fall almost without exception under the two heads of current expenses and salaries. Other outlays or charges, of an occasional or extraordinary nature, such as transfers to special accounts and the like, which appear in some of the reports, need not be taken into further consideration at this time. In Table VI. will be found the amounts paid for current expenses and for salaries from 1869 to 1883. Prior to 1878 the reports do not make separate account of the salaries paid from special appropriations

TABLE VI.—*Salary and Current Expense Accounts from 1869 to 1883.*

For the Fiscal Year Ending	Salary Account.		Current Expense.
	Total Pay-Roll.	General Pay-Roll.	
June 30, 1869	$43,658 56		$24,909 28
" " 1870	52,922 50		16,195 31
" " 1871	60,776 67		18,670 69
" " 1872	65,689 16		17,462 23
" " 1873	73,392 16		19,524 65
" " 1874	Five Quarters 92,719 37		20,704 30
" " 1875	Four Quarters 78,117 00		23,438 35
" " 1876	Three Quarters 70,816 25		28,985 43
" " 1877	Four Quarters 92,105 82		29,647 41
" " 1878	86,671 08	$71,018 20	30.002 98
" " 1879	92,392 74	70,790 00	42,581 67
Sept. 30, 1880	Five Quarters 124,777 92	105,037 17	72,468 70
" " 1881	110,678 80	99,541 50	63,800 27
" " 1882	118,390 82	104,740 82	42,389 35
" " 1883	125,599 89	110,759 99	42,556 86

An inspection of this table will show that, while in both classes the expenditure now is greater than it was fourteen years ago, yet that in the last four or five years the increase has been by far most marked in the salary account, the annual pay-roll having increased between 1879 and 1883 by the sum of $39,969.99. It becomes important to examine into this branch of the inquiry somewhat more closely, and to try to find out in what way this increase has been brought about.

In order to put the data in such a shape as to be easily studied, I have combined in Table VII.* the quarterly pay-rolls (except those paid from special appropriations) for five and a half years, beginning with the quarter ending June 30, 1878. Where any one has received a part of his salary from a special fund, the fact is indicated in the table by a ring around the figures. The table shows at a glance that the increase in the pay-roll has not been due so much to an increase of individual salaries as to an increase in the number of persons to be paid. The last five years has been a period of rapid growth, and within that time the University has developed largely in all directions. By aid of the table it would be easy to point out the lines along which the University has increased in efficiency from year to year, but such an inquiry would go beyond the scope of the present paper. More important for the purpose now in view is a careful comparison of the earlier pay-rolls with those of later date. For such a comparison I have selected the rolls which belong to the academic years—1878–79 and 1882–83. A comparison by academic years is more satisfactory, for the reason that the salaries paid during any given fiscal year cover parts of two academic years; and consequently any given annual report would take into account only a part of the salary of any officer or employé whose term of service did not fall in both years. The aggregate expenditure for an academic year will differ only slightly from that of the fiscal year ending at nearly the same time.

Table VIII. contains in parallel columns the salaries paid from the general

*Tables VII and VIII are on file.

fund for the two years above mentioned, and shows also the increase or decrease in each case. Where the same professorship or other position was held by different persons in the different years, the two names are bracketed together. Mr. Condon's salary for 1878–79 ($360.00), which was paid, under the system then in operation, from the laboratory receipts, is included here as a proper charge to the salary account of that year. The aggregates for the two years are as follows:

1878–79	$70,987 50
1882–83	110,829 99
Increase	$39,842 49

In the table the net increase is exhibited as the difference between a gross increase of $42,882.49 and a decrease of $3,040.00. In regard to this decrease it may be said that it does not all represent an actual decrease of expenditure. For example, the positions held in 1878–79 by Drs. A. C. Maclean, North, and Ayres, were afterwards filled by other persons, though not immediately by those occupying corresponding positions in 1882–83; and the work done by Dr. Rose has been taken up in part by Dr. Vaughan, and in part by others.

The net increase may be regarded as due to three causes: (1) The assumption of special accounts after legislative appropriations have been exhausted; (2) increase of individual salaries; (3) increase of working force.

(1). By referring to Table VII. it will be seen that in 1878–79 the sum of $10,900.00 was used from special funds for salaries that were subsequently paid from the general fund. These salaries and the funds that provided them were as follows:

A. B. Palmer, Extension of Medical Term	$700 00
C. L. Ford, " " " "	700 0
G. E. Frothingham, " " " "	700 0
D. Maclean, " " " "	700 00
E. S. Dunster, " " " "	700 00
J. W. Langley, " " " "	700 00
W. J. Herdman, " " " "	300 00
C. L. Ford, Dental College	400 00
W. H. Pettee, Professorship of Geology	2,000 00
C. K. Wead, Professorship of Physics	1,600 00
C. S. Denison, School of Mines	900 00
B. W. Cheever, " " "	750 00
C. H. Stowell, Physiological Laboratory	750 00
Total	$10,900 00

(2). From the data given in Tables VII. and VIII. it can be easily seen that the total increase of individual salaries amounted to $8,119.16. This sum, diminished by $700.00, the apparent decrease in the departments of Astronomy and Modern Languages, leaves as the net increase $7,419.16.

(3). In a similar way Table VIII. contains the data for showing that the net increase due to additions to the working force amounts to $21,523.33. The number of names on the pay-roll for 1878–79 is 64. For 1882–83 the number is 95. From this latter number three should be deducted on account of changes in the force during the year—Messrs. Tolchard, Geisler, and Textor having resigned, and their places having been filled by others. The net increase in force is 28.

It is not easy to say precisely how much of the increase in pay-roll should be charged to each of the several departments of the University. Some of the instructors are engaged in the work of more than one department at the same

time, and the Chemical Laboratory stands in close relation to all the others—the Law School only excepted. The following summary statement is intended to be a fair approximation to the truth:

DISTRIBUTION OF INCREASE AMONG DEPARTMENTS.

Literary Department (including School of Pharmacy and Chemical Laboratory):		
Assumption of Special Salaries	$5,250 00	
Increase of Salaries	4,790 00	
Increase of Force	12,130 00	
		$22,170 00
Medical Department:		
Assumption of Special Salaries	$5,650 00	
Increase of Salaries	2,000 00	
Increase of Force	4,350 00	
		12,000 00
Law Department		1,516 66
Library		700 00
Museum		480 00
Office Expenses		1,063 33
Grounds and Incidentals		1,912 50
Total		$39,842 49

In the hope that the preceding paper, which may be styled a partial study of the condition of the general fund of the University, may have some value for the Board, I now respectfully submit it for your consideration.

W. H. PETTEE.

Tables VII. and VIII. are still on file, but the net increase of expenditure is thus seen to be due to three causes: 1. The assumption of special accounts after legislative appropriations had been exhausted. 2. Increase of individual salaries. 3. Increase of working force.

It is not easy, says the paper in conclusion, to say precisely how much of the increase in pay roll should be charged to each of the several departments of the University. Some of the instructors are engaged in the work of more than one department at the same time, and the Chemical Laboratory stands in close relation to all the others, the Law School only excepted.

The above summary statement is intended to be a fair approximate to the truth.

Several items of this paper of Professor Pettee need some further explanations on the part of the Regents, especially in reference to the Literary Department, where the increase has been the largest.

1. It is said "That in the last four or five years the increase has been by far the most marked in the salary account." The assertion is true and the date correct—then it was that the salary increase began.

2. It is said, "Table No. VI. shows at a glance that the increase in the pay roll has not been due so much to an increase of individual salaries as to the increase in the number of persons to be paid." True again.

The increase has *not* been due in the main to an increase of individual salaries. Some years previously the old salaries were cut down seven or eight per cent. in accordance with the action of the Legislature and the personal recommendation of Governor Croswell, and have never been restored since.

The chief increase *has* been "In the number of *persons* to be paid." The pay roll speaks for itself.

3. "The last five years have been a period of rapid growth."

No doubt of this, either. In 1881 the number of students was 1,534, and students' fees, $62,466; in 1882, students, 1,534; fees, $65,597, as against 1,110 students in 1877, and $34,570 fees.

"Within this period of five years the University has developed largely in all directions." Hence by unavoidable inference this "development" and the increased annual expenditure are brought face to face as cause and effect; hence, by similar inference, as the principal line of direction points to the Department of Literature, Science, and the Arts—it is to this Department, that those to whom the Board of Regents make their report will most naturally look to discover what this development really is.

In one word, then, to give it the name it usually bears, it is known as the new departure, or the elective system, which substitutes courses for classes, and endeavors to meet the new demand for more variety in education.

By whom, then, was this new departure inaugurated? By the Regents, indeed, but most unwillingly, after the Faculty had already issued their announcements, for which premature action they received the censure of the full Board. Whatever the result of the experiment might be, in the way of educational facilities and popular support, (and the Regents were inclined to think favorably of it), yet they were not so confident as to the assurance that the new system would involve but little additional expense; but it was too late to rectify the matter without serious detriment to the University, and especially of disappointment to the public, and so the Board were obliged to let things take their course.

For the practical working of the elective system, see Regents' reports under the new law, which it is unnecessary here to repeat. It has required a great amount of change, a great amount of labor, some of it entirely unexpected; but beyond question it has been a complete success. To return to the former system, either in whole or in part, is no longer possible nor expedient. On the whole we are glad that the new departure has been taken. The manner in which it was done was the mistake of the moment. The benefit to the Institution will be for all time. The Regents are therefore of opinion that notwithstanding the additional cost, the advanced position should be sustained. They are grateful to a generous commonwealth for the material progress that the University has thus far made, especially for the Library building, and for the much needed and long coveted volumes to fill its vacant shelves; and while these and similar improvements were so much needed, they felt reluctant to present other and still greater needs, but the time at length has come when we can no longer hesitate.

Growth is the inevitable law of healthy and vigorous life. If a child will grow and grow out of his clothes, he must have larger. If a family will grow, it must have more rooms and a larger house. If a country will grow, it must have additional States. So if the University of Michigan will grow and exceed its present environments, it must grow. There is nothing for it but that it should be allowed to reach its full development.

INVENTORY OF REAL ESTATE AND PERSONAL PROPERTY.

Real Estate:

40 acres of land	$80,000 00
University hall—north and south wings	110,000 00
Law department building	25,000 00
Homeopathic college and hospital buildings	13,000 00
University hospital	16,000 00
Medical college	30,000 00
Chemical laboratory	30,000 00
Dental college	12,000 00
President's house	8,000 00
Museum building	40,000 00
Mechanical laboratory	5,000 00
Carpenter-shop	250 00
Central boiler house	7,500 00
Steam heating apparatus	50,000 00
Water-works and plumbing	7,000 00
Gas fixtures, pipes, and fittings	5,000 00
Astronomical observatory	15,000 00
Students' observatory	1,000 00
Computing house	1,000 00
Photograph house	150 00
Professor's house attached to observatory	4,000 00
4 acres of land	4,000 00
New library building	100,000 00
Total	$563,900 00

Personal Property:

Contents of University hall	$11,529 00
Contents of south wing	4,951 00
Contents of north wing	6,000 00
Contents of law building	3,182 00
Contents of homeopathic college and hospital	1,916 00
Contents of mechanical laboratory	4,500 00
Contents of University hospital	3,500 00
Contents of medical college	7,671 00
Contents of medical museum	9,000 00
Contents of chemical laboratory	7,500 00
Contents of dental college	3,135 00
Contents of astronomical observatory	12,000 00
General museum	72,000 00
General library	75,500 00
Law library	32,500 00
Total	$254,884 00

Real estate	$563,900 00
Personal property	254,884 00
Total	$818,784 00

All of which is respectfully submitted. 1. By the executive committee to the Board. 2. By the Board of Regents to the Superintendent of Public Instruction.

GEO. DUFFIELD,
Committee.

A.

PRESIDENT'S ANNUAL REPORT.

To the Honorable Board of Regents:

I beg leave to submit to you my Annual Report for the University year, ending September 30th, 1884.

The following is a statement of the changes in the Faculties:

In November, 1883, Margaret Humphreys, D. D. S., was appointed assistant in Clinical Dentistry, in the place of U. D. Billmeyer, D. D. S., resigned.

In June, 1884, Elisha Jones, A. M., Associate Professor of Latin, was given leave of absence for one year, for study and travel in Europe, and Instructor Charles M. Gayley, A. B., was made Acting Assistant Professor of Latin for one year, and Benjamin L. D'Ooge, A. M., was appointed Instructor in Latin for the same period. O. F. Chadbourne, M. D., was elected Resident Physician and Surgeon in the University Hospital, in the place of George F. Heath, M. D., resigned, and W. H. Sawyer, M. D., was appointed to the same post in the Homœopathic Hospital, in place of W. H. Davis, M. D.

In July, Dr. A. B. Prescott was appointed Director of the Chemical Laboratory, John Dewey, Ph. D., Instructor in Philosophy for one year, and Homer H. Kingsley, A. B., Instructor in Mathematics for one year. Hon. Thomas M. Cooley, LL. D., resigned the Jay Professorship of Law and the Professorship of Constitutional and Administrative Law in the School of Political Science.

In August, A. C. Cowperthwaite, M. D., was elected Professor of Materia Medica, Pharmacology and Clinical Medicine in the Homœopathic Medical College, the term of Dr. H. C. Allen, as Lecturer on those subjects, having expired. H. B. Hutchins, Ph. B., was elected Professor in the Law School.

The degrees conferred are as follows:

DEGREES OF EXAMINATION.

Bachelor of Letters	10
Bachelor of Science	5
Bachelor of Science (Civil Engineering)	2
Bachelor of Philosophy	14
Bachelor of Arts	52
Master of Science	3
Master of Philosophy	1
Master of Arts	13
Doctor of Philosophy	2
Doctor of Medicine (Dep't of Medicine and Surgery)	85
Bachelor of Laws	133
Pharmaceutical Chemist	38
Doctor of Medicine (Homœopathic College)	19
Doctor of Dental Surgery	24
	401

HONORARY DEGREES.

Bachelor of Arts	1	
Civil Engineer	1	
Master of Arts	1	3
		404

The total number of students in attendance was as follows:

DEPARTMENT OF LITERATURE, SCIENCE, AND THE ARTS.

Resident graduates	19	
Candidates for a degree	423	
Students not candidates for a degree	97	539

DEPARTMENT OF MEDICINE AND SURGERY.

Resident graduates	4	
Third year students	90	
Second year students	109	
First year students	129	332

DEPARTMENT OF LAW.

Seniors	128	
Juniors	177	305

SCHOOL OF PHARMACY.

Resident graduates	2	
Second year students	41	
First year students	34	77

HOMŒOPATHIC MEDICAL COLLEGE.

Students—Total in the college	57

COLLEGE OF DENTAL SURGERY.

Students—Total in the College	67
	1,377

By comparing the above figures with the statement for the preceding year, it will be seen that there was an increase of fourteen students in the Literary Department, and a considerable decrease in the aggregate attendance in the professional schools, chiefly in the Department of Medicine and Surgery and in the Law School.

Sixty per cent. of the students in the Literary Department, forty per cent. of those in the professional schools, and nearly forty-nine per cent.—a somewhat larger proportion than last year—of all the students in the University were from Michigan. As usual nearly every part of our country, and some foreign lands—England, Japan, the Hawaiian Islands, Costa Rica, and the British American Provinces—were represented in our body of students.

The number of women in the University was 180, distributed as follows:

Literary Department	117
Department of Medicine and Surgery	43
Law Department	1
School of Pharmacy	2
Homeœopathic College	12
Dental College	5

The work of the University, in all its departments, has gone on with great harmony and efficiency through the year.

Our organization of the work in the Literary Department is proving very satisfactory. It is believed that the difficulties, which many eastern colleges are encountering from the differences of opinion concerning the importance of the ancient classics, are best met by the plan which has been followed here for many years. Courses are established which omit one or both of the ancient classic tongues, Greek and Latin, but which furnish a generous culture by the pursuit of other linguistic studies and of scientific, historical, and literary branches. It has, however, not been thought wise to break with the traditions of the past by conferring the degrees of Bachelor of Arts on those who have

not been trained in both Latin and Greek. Attainments of other kinds are recognized by other degrees. By the establishment of four different courses, each leading to an appropriate degree, large liberty is left for choice of the general line of study to be pursued. In each of these courses, for the first year and a half or two years, the studies are for the most part prescribed, but during the latter half of the term of collegiate life, except in the technical work of engineering, an almost unrestrained freedom in the selection of studies is granted to the student. While it seems impossible that those who approve and those who disapprove of the plan of making instruction in the ancient classics an essential part of a liberal education, shall be brought to an agreement in their views, there is good reason why a University should furnish a generous training both to those who do and to those who do not desire the classical training. Our flexible system accommodates itself to the public wants and is easily administered without friction or lack of harmony. As a matter of fact a much larger number of students always choose the full classical course than any other offered.

The number of our students of Engineering, especially of Civil and Mechanical Engineering, is becoming so great that we are somewhat embarrassed to make proper provision for them. The establishment and development of our Mechanical Laboratory and shops have awakened a new and enthusiastic interest in Mechanical Engineering. In providing them we simply aimed at the outset at furnishing assistance to Civil Engineers in their studies. But there seems so great a demand for instruction in Mechanical Engineering and our plant of machinery and tools adapted to such work is so considerable, and the public are so thoroughly awakened to the need of men well trained to guide our great mechanical industries, that it is a question for the State to consider whether she will not give us the means to enlarge our work in this direction. Some of the States about us are already provided with shops and machinery, with which our outfit is not worthy to be compared. No one doubts that Michigan is destined to be the seat of manifold and varied industries. Will she not be wise to train some of her sons with the help of the best scientific knowledge and practical skill to direct with the greatest efficiency those pursuits which depend for success on a complete knowledge of mechanism? The generosity of a number of manufacturers of machines and tools to us has been most gratifying. They have furnished us with some of the choicest productions of their shops.

Another year's experience with the "university system," which was described in my last report, confirms me in the conviction that it is of great service to those students who desire to concentrate their work in the last two years of their course or in post-graduate study upon a few lines of research. The tendency of the system is to lead scholars to pursue their work in a most generous, unartificial, and earnest spirit, and to accomplish more than they would under the mere stimulus of the ordinary class-room methods. Some of the examinations of the candidates for graduation under this system were most brilliant and gratifying.

Excellent results have been attained by students in the School of Political Science this year. Some of the papers and theses, which are the fruit of their researches, are likely to appear in print as valuable contributions to the discussion of important historical and political subjects. It were much to be desired that in some way this school could be brought into closer relations with the Law Department, many of whose students would gladly and profitably

avail themselves more fully than they now can of the instruction it gives on economic and historical and governmental questions.

An important step has been taken this year in admitting schools outside of Michigan to the privilege hitherto accorded to Michigan schools alone, of sending students to the University to be received without examination. Only such schools in Michigan as had been visited by a Committee of the Faculty and formally approved by the Faculty were entitled to have their diplomas thus recognized by us. We have received students from approved schools on this plan for thirteen years. About half of our new class are now accepted every year without special examination by us. The Faculty having satisfied themselves that candidates for admission were instructed in the schools in all the preparatory work we require, and that the organization and equipment of the schools were adequate for imparting such instruction with thoroughness, have found it entirely safe to trust the certificate of the authorities, and to accept the pupils whom they reported as prepared for our studies. A careful collation of statistics proved that such pupils were, as a rule, quite as well prepared as those whom we received on examination. The many advantages of the system which have been fully set forth in previous reports, were apparent to the universities and colleges in the neighboring states, and our plan, with some modifications, has been adopted by many of them. We have often been asked by prominent schools in other states than Michigan to admit them to the privileges of the "diploma system," and after careful consideration we have decided to put academies and preparatory schools in other states on the same footing in this regard as the schools of Michigan. We believe that this course will work no injustice to the Michigan schools, and that it will inure to the elevation of educational standards in the West and to the good of the University.

The work of the Medical Schools has proceeded harmoniously and successfully during the year. Experience shows that owing to our preliminary examinations and our extended course of study, three terms of nine months each, we secure a higher and higher grade of attainments from year to year in our applicants for admission. It is to be hoped that we may at no distant day be able to require as much scholarship for admission as we now ask in our School of Pharmacy.

The extension of the term in the Law School to nine months meets with marked favor from the profession and from our students. Time has been gained, not only for more lecturing, but for more thorough quizzing and drilling of students.

It is with the deepest regret that we have been obliged to yield to Professor Thomas M. Cooley's desire to be released from his duties in the University. He has been a member of the Law Faculty from the founding of the school in 1859, and most of the time its Dean, and a member of the Faculty of the School of Political Science since its establishment in 1881. His wide reputation as a jurist and an author attracted students hither from all parts of the land. His lucid and learned lectures and his more informal instruction and counsel so kindly given at all times bound his pupils to him and to the Law School by the strongest ties. We must count it a singular good fortune which has secured for a quarter of a century to our Law Department the uninterrupted services of so eminent jurists and teachers as Judge Cooley and his colleague upon the bench, who consents to aid us for at least another year.

The School of Pharmacy pursues its course so unostentatiously that even many upon our own grounds may not appreciate the substantial value of its

excellent work. It has been rapidly raising its own standards, and has thus been compelling, as abundant testimony informs us, the elevation of the standard of other schools and of pharmacists generally. It has not sought to attract large numbers so much as to raise the grade of studies mastered in its classes.

The Dental College, like all the other departments of the University, has now lengthened its curriculum to two terms of nine months each. This extension was not only called for by the desire of the dental profession, but also by the actual needs of the students, who were, in fact, often obliged to remain three months beyond the prescribed term of six months, in order to complete the work required of them. Provision has also been made to meet a demand for post-graduate work. The College has thus far ranked as one of the two or three whose diplomas are recognized in Europe. The elevation of its course, which will be feasible under this extension of the term, will add to its already high reputation. It needs a little addition to its fund to enable it to achieve the full success which is easily within its reach.

One of the most important events in our history this last year was the completion of the Library Building. Various causes delayed the builder in finishing the structure. But we were able to occupy it on the 12th of December last. It was thought fitting to celebrate the occasion in a becoming manner. Public exercises were held in University Hall, and attended by eminent friends of the University from various parts of the State. The building has been found to be very satisfactory under the tests of actual use. It is convenient, easily warmed in the winter, and always well ventilated. The spacious reading room and the rooms devoted to the special use of advanced students are most thoroughly appreciated, as is shown by the greatly increased number of volumes which are read. The Art Gallery is also admirably adapted for the display of our statuary, engravings, pictures, medallions, and coins. The generous appropriation made by the last Legislature has enabled us to make most valuable additions to our collection of books. In our purchases special attention has been paid to securing large and expensive sets of books of reference, which we have not heretofore had the means to procure. It is to be hoped that subsequent Legislatures will enable us to increase rapidly for a few years our still defective collection, until the scholars from all parts of the State may have access to one library adequate to their most pressing needs. We had, on September 30th, according to the librarian's count, 44,880 bound volumes and 10,020 pamphlets.

From the reports of the curators of the museums the following facts are gained.

Considerable work has been done in the Botanical museum in preparing and arranging specimens of fruits, seeds, fibres, sections of native and foreign woods, and other vegetable productions. A number of additions have been made to the Homœopathic museum, and also to the Dental museum. In the museum of Zoölogy several hundred native birds have been mounted for the use of students, and the work of arranging in the cases and labelling the large collections on the second floor has been carried on, but much remains to be done. There are many valuable skins of mammals which ought to be mounted soon. The south room in the third story of the museum has been furnished with excellent cases, which have been filled with specimens illustrative of archæology and ethnology. But more cases still are needed for our collection. There has been a gratifying increase in the mineralogical collection. Professor Du Bois, formerly of the University, sent a large and unusually rich collection

of ores from Leadville, Col. Dr. Garrigues, of this city, gave us his private collection of minerals, numbering over four hundred valuable specimens, and many gifts of smaller value have been contributed. The work of re-labelling the collection has been carried forward, but not completed. The museum of Applied Chemistry, comprising collections of chemical and pharmaceutical manufactures and of sets of crude materials of commercial or industrial importance, now contains 1,435 specimens. These have been provided by the contributions of friends of the University, or by the work of students of the Chemical Laboratory, or by purchase. Powers & Weightman, of Philadelphia, W. H. Schieffelin & Co., of New York, Dr. S. P. Duffield, of Dearborn, Mich., and C. C. Howell, of St. Louis, Mo. (Ph. C., class of 1870), have been conspicuous donors. The curator, Dr. Prescott, recommends—and I heartily concur in the recommendation—that a museum of Chemical Technology be developed here on the plan of the collections in South Kensington, London, and of the new medical museum at the Smithsonian Institution. The expense would not be great, but more room than we now have available would be needed. A few additions have been made to the museum of General Geology and Paleontology. But it is very desirable that we have the means of making additions, especially of vertebrate remains, to our collections. Large supplies of desirable specimens are found in our western territories. For the lack of these our special students are suffering seriously in the prosecution of their work here. The curator of the museum of Art and History reports that the collections are now six, viz.: 1, statuary in marble, plaster, and bronze; 2, small statuary in terra cotta; 3, engravings, etchings, photographs, and paintings; 4, the Horace White collection of medallions; 5, the Governor Bagley collection of medals; 6, the Richards collection of coins. The new gallery is found to be admirably adapted to its purpose. The room will suffice at least for the temporary housing in safety of the Lewis collection, which is to come to us. The chief additions to the museum during the year have been the gifts made by Henry Phillips, Jr., of Philadelphia, and by the late Dr. Richards, to the collection of coins, which now contains nine hundred and forty-three specimens.

I have been informed by the executors of the will of the late Henry C. Lewis, Esq., an eminent citizen of Coldwater, Mich., that Mr. Lewis has made a most valuable bequest to the University. He provided by his will that the large collection of pictures and statuary in his gallery shall come into the possession of the University on the decease of his widow, or at an earlier date, if it be her pleasure.

Mr. Lewis died at Clifton Springs, N. Y., where he had been temporarily sojourning for the benefit of his health, on the 18th of August last. He had been engaged for nearly twenty years in making his collection of works of art. Much of his time during two visits to Europe was devoted to this work. His gallery now contains nearly seven hundred paintings and some thirty-five pieces of statuary. In the collection are found not only copies of the chief works of the old masters, but also the best specimens from the easels of a number of the most distinguished modern artists. It is safe to say that there are few better private galleries in this country. Mr. Lewis had expended fully two hundred thousand dollars upon it. With characteristic generosity he threw it open freely to the public, and was gratified at seeing others share the pleasure which he experienced from studying the best productions of art.

Mr. Lewis's gift is by far the largest in value ever made to the University by an individual. We shall prize it greatly for its intrinsic worth. But we also value it as an evidence that individual beneficence to the University is not

cut off by the fact that the State supplies our most pressing wants. We cherish the hope that the example set by Philo Parsons in the gift of the Rau Library, and by James McMillan in the gift of the Shakespearean Library, and by Mr. Lewis in this splendid gift of his Art Collection, will stimulate other generous men to remember the great needs of the University. When the Lewis gallery comes to the University, I think that we shall have a better collection of works of fine art than any other college or university in the country. This fact suggests to us at once the necessity of preparing at an early day for the organization of a School of Fine Arts as a department of the University. The beginning of the work of such a school is already found in our course in Geometrical and Free-hand Drawing, Descriptive Geometry and Perspective. Our courses in music would also naturally be grouped under the plan for such a department. It would seem to be only showing a proper appreciation of the generous purposes of the donor of the choice collection of paintings and statuary which are to adorn our halls, if we should by providing proper instruction in the Fine Arts make the collection of the utmost value to all. It is to be hoped that the means for accomplishing this end may be placed at our disposal, either by private or public benefactions. It may be worthy of consideration, whether, in view of the expense of instruction in art, we might not charge the students in an art school higher incidental fees than are now paid for university instruction.

The report of the Finance Committee, appended hereto, gives the items of our receipts and expenditures. With all the rigorous economy we can exercise, our income barely suffices to meet our outlay for current expenses. We have no means for meeting any of those exigencies which are sure to come from time to time upon so large an institution as this. We shall be compelled to ask the Legislature for a considerable sum for repairs of our buildings. There is pressing need for an enlargement of the accommodations of the Department of Medicine and Surgery. The growth of our Engineering classes has made it in the highest degree desirable that they have a building set apart for them. There is every indication that an increasing number of students will desire instruction in Civil, Mining, and Mechanical Engineering, especially in the latter branch. The limits of our accommodations for shop work are already reached. We are obliged to refuse applicants for admission to the shops.

But above all we need some permanent addition to our general fund, which is chargeable with every expenditure not met by some special appropriation of the Legislature. Its burdens increase with every step in our development. And it should be clearly understood that our real growth and development are not to be measured by an increase in the number of students. They are found rather in our improved methods of teaching, in enlarged means of illustration, in specialization of instruction. These call for more teachers, for more apparatus, for more buildings. And with every addition to our corps of instructors, to our supplies of illustrative apparatus, to our lecture rooms and shops and laboratories, there comes a new tax on our general fund. How can this fund be increased? There seem to be only three possible ways. First, an increase in the number of students will swell it by the amount of their fees. But the fees are so small that a large addition to our number would be necessary to furnish any adequate relief. And as the colleges and universities of the west are rapidly improving, we can hardly hope to see our numbers speedily increase enough for the accomplishment of the end now under consideration. Secondly, private endowments of Professorships might relieve the general fund to the

amount of the salaries now drawn from it to sustain the chairs which might be endowed. But nothing in our history or in our present circumstances justifies us in expecting that kind of aid. The third, and so far is now apparent, the only resource is to be found in the generous interest of the State in our prosperity. If the one-twentieth mill tax could be increased, we should have the needed relief. Our neighbor, the State of Wisconsin, imitating our law in her mode of providing for her university, fixed the tax at one-eighth of a mill. If Michigan, which has so liberally met our needs in years past, should see fit to do for us what Wisconsin has done for the university at Madison, we should be free from solicitude for years to come. This suggestion is made with the frankness which has always characterized our utterances to the citizens of our Commonwealth concerning the needs of the University. It is their institution. We are but custodians of it, who administer its affairs in their name and for their benefit. It is our duty to make known to them freely and without reserve what is its condition and what are its wants. Our experience has shown that we may with confidence leave it to them to say how and when its wants shall be supplied.

JAMES B. ANGELL,
President.

STATE BOARD OF EDUCATION.

ANNUAL REPORT.

To the Superintendent of Public Instruction:

SIR—In accordance with the provisions of law, the following report is submitted by the State Board of Education for the year ending September 30 1884:

STATE NORMAL SCHOOL.

At the beginning of the academic year at the Normal School Hon. Edwin Willits assumed the duties of Principal of the Normal School and the success that has attended his administration thus far has afforded the Board most gratifying assurance of the wisdom of their action in having chosen him to this position.

Several other changes have been made in the Board of Instruction during the past two years. June 26, 1883, Mrs. Lucy A. Osband was chosen instructor in natural history. August 30, 1883, Mr. Geo. F. Key was appointed assistant in the practice school. April 6, 1884, Miss Lois A. McMahon was appointed assistant instructor in English literature. June 25, 1884, the Board appointed Rev. Theodore Nelson to the chair of English language and literature, at a salary of $2,000 per annum; Henry S. Coe, assistant in mathematics; and Miss Florence Kinney, assistant in ancient and modern languages. A list of the present corps of instructors is given in the accompanying report of Principal Willits.

Courses of Instruction.

At a meeting of the Board held March 28, 1883, a committee consisting of Prof. Putnam, Miss Julia King, and Prof. George, was appointed to act in conjunction with Principal Willits to revise the courses of study in the Normal School. A revised schedule of studies was submitted to the Board by the committee at a meeting held May 2, and adopted. Pupils entering the school are now offered the choice of five regular courses of study, as follows: Scientific, four years; Literary, four years; Ancient Languages, four years; Modern Languages, four years; English, three years. A special course with music, and several special courses made up of optional selections from the regular courses are also offered.

A complete schedule of the present courses of instruction can be found in the accompanying report of the Principal.

Improvements.

During the period covered by this report a number of improvements and repairs to the grounds and buildings, have been completed. During the summer of 1883 the buildings were painted and calcimined at an expense of $3,140, the work being satisfactorily done by Brand & McCullough, the lowest bidders. New out-buildings have been erected at a cost of $1,800, and the grounds graded and otherwise improved under the supervision of the Principal. These improvements have materially added to the sanitary condition of the buildings and surroundings, and have greatly enhanced the comfort of both faculty and students.

The items above mentioned constitute the only expenditures of any importance aside from the disbursements for current expenses. Itemized statements of the receipts and disbursements of the Board for the past year are given in the report of the Treasurer which accompanies this report.

Visitors.

Agreeably to the provisions of law, the Board made appointment of the following visitors to the Normal School for the year 1883–4: Hon. W. J. Baxter of Jonesville, Hon. Henry Fralick of Grand Rapids, and Rev. Clarence Eddy of St. Clair. The report of this board of visitors will be found in the Appendix.

EXAMINATION QUESTIONS.

As provided by law, the Board has provided suitable questions for use at the regular county examinations held in March and October. Though county boards of examiners are not required to make use of the questions, they have been very generally employed, and the beneficial results of a greater uniformity in the character of these examinations have been very apparent. The advisability of a still more general uniformity in all county examinations was an important subject of discussion at a meeting of county examiners held at Lansing, last December. As a result of this discussion, the following resolutions were adopted:

Resolved, 1. That a committee of three be appointed by the chairman, to act with the State Superintendent of Public Instruction as chairman, in preparing a schedule of ten uniform dates for our county examinations.

2. That circulars be issued by the Department of Public Instruction, asking the Boards of Examiners to make their examinations conform to these dates as far as practicable.

3. That the State Board of Education be requested to prepare questions suitable for these examinations, and issue them to all such Boards of Examiners as express their desire to use them.

In accordance with the foregoing resolutions a committee was appointed, who reported in favor of holding special examinations on the following dates: The last Friday in August, the second and last Fridays in September, the last Friday in November, the last Friday in February, the second Friday in March, the last Friday in April, and the last Friday in May. These uniform dates, together with questions prepared by this Board, have already been adopted by many of the county boards.

STATE CERTIFICATES.

In accordance with what seemed to be the spirit and intent of Act No. 231, Laws of 1879, relative to State certificates, the Board adopted the following regulations to govern the issuance of such certificates:

1. Two kinds of certificates will be issued: One to such persons as shall be invited to apply, and the other to successful candidates at regular examinations held by the Board.

2. *Invitations* will be extended only to such persons as are known to be eminent as scholars and successful educators, of large and varied experience in the public schools of the State, and who, at the time the certificates are issued, shall be engaged in that work; but not more than five such certificates shall be granted in any one year. Each of those invited to apply for such certificate will be required to read before the Board, and to deposit with the Secretary, a thesis upon some educational topic.

3. Candidates for *examination* must comply with the following conditions:

a. They must furnish satisfactory evidence of good moral character;

b. They must furnish satisfactory evidence of having taught not less than thirty months with decided success, at least ten months of which shall have been in this State;

c. They must pass a very thorough examination in orthography, reading, penmanship, arithmetic, algebra, plane geometry, grammar, geography, U. S. history, civil government, and theory and art of teaching;

d. They must pass a satisfactory examination in school law of Michigan, general history, physical geography, natural philosophy, physiology and hygiene, botany, zoölogy, geology, chemistry, and astronomy;

e. Written testimonials from responsible persons will be required as evidence of good moral character;

f. In respect to length of time taught, the statement of the applicant, giving time, place, and kind of school, will be sufficient;

g. Written testimonials from employers will be required as to success in teaching. The testimony on this point must be clear and explicit;

h. The application, accompanied with the examination fee, together with satisfactory evidence relative to character, length of time taught, and success in teaching, must be furnished at least twenty days before the first day of the examination. Any one whose credentials are unsatisfactory will be promptly informed of that fact, and thereby be saved the expense of attendance upon examination;

i. Papers forwarded as testimonials must in all cases be originals. When copies are sent for filing in this office the originals will be returned, but not otherwise;

j. Both the oral and the written methods of examination will be employed. A definite time will be allowed to each topic, varying with the nature of the subject and the number and character of the questions proposed;

k. Each examination will continue three days, and applicants for certificates must be in attendance through the entire examination.

Applicants invited to read theses must be in attendance the last day of the examination.

No announcement of the results can be made at the immediate close of the examination. The careful review of papers written, and the filling out of certificates, will require several days' time.

Each kind of State certificate entitles the holder to teach in any school district of the State without further examination, and is valid for ten years, provided the personal and professional reputation of the holder remains untarnished.

It is intended by the State Board of Education that these certificates shall be granted only to those who, by their broad culture and successful experience in educational work, have given character and dignity to the profession in this State.

Due publication will be made of the dates of all examinations.

All communications should be addressed to the Secretary of the State Board of Education, Lansing, Mich.

Under these regulations State certificates have been granted as follows:

Upon Invitation.

Miss Julia A. King, Ypsilanti.
C. B. Thomas, A. M., Saginaw.
Charles Kelsey, A. M., Marquette.
H. R. Pattengill, B. S., Ithaca.
E. B. Fairfield, Jr., B. S., Grand Haven.
J. W. Robinson, Manchester.
Miss M. Louise Jones, Charlotte.
David Howell, Lansing.
Frank Landon, Niles.
E. C. Thompson, Albion.
F. A. Barbour, Coldwater.
Mrs. L. F. Selfridge, Jackson.
E. P. Church, A. M., Greenville.
Z. C. Spencer, A. M., Battle Creek.
M. T. Gass, A. M., Flint.
H. R. Gass, A. M., Jonesville.
Miss Lina Schenck, Fenton.
Varnum B. Cochran, A. M., Marquette.
J. G. Plowman, White Pigeon.
J. S. Crombie, Big Rapids.
R. W. Putnam, Ypsilanti.
Mrs. S. A. Crane, Houghton.

Upon Examination.

James Warnock, Jr., Spring Lake.
L. O. Chatfield, Mt. Pleasant.
C. E. Swift, Lexington.
W. A. Fallass, M. D., Cedar Springs.
James A. Smith, Evart.
Frank Millis, Lapeer.
J. G. Johnston, Three Oaks.
W. W. French, McMillan.
C. C. Wood, Wacousta.
E. J. Wiley, Sault Ste. Marie.
James Brassington, B. S., Hart.
E. A. Condit, Morenci.
G. J. Edgecumbe, Benton Harbor.
W. J. Cox, Calumet.

Text Books on Physiology, Etc.

Act No. 93, session laws of 1883, provides as follows:

Sec. 15. The district board shall specify the studies to be pursued in the schools of the district: *Provided, always*, That provision shall be made for instructing all pupils in every school in physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants, and narcotics generally, upon the human system: *Provided further*, That the text-books used in giving the foregoing instruction shall have received the joint approval of the State Board of Education and State Board of Health. The said district board shall prescribe the text-books to be used, which shall be uniform in each subject that may be taught, but text-books once adopted under the provisions of this act shall not be changed within five years except by the consent of a majority of the qualified voters of the district present at an annual meeting. Each school board making a selection of text-books under this act shall make a record thereof in their proceedings.

In accordance with a provision of the foregoing act, the following text-books upon the subjects of Physiology and Hygiene have been approved by the State Board of Health and State Board of Education for use in the public schools of the State:

Hutchinson's Physiology and Hygiene.

Hutchinson's Laws of Health.

Steele's Hygienic Physiology, with special reference to Alcohol, Tobacco, and Narcotics; and the abridged edition of the same work.

Brand's Lessons on the Human Body, Physiology, Hygiene, and Narcotics.

R. T. Brown's Elements of Physiology and Hygiene.

Mills's First Lessons in Physiology and Hygiene, with special reference to Alcohol, Tobacco, and Narcotics.

Martin's Human Body.

Eli F. Brown's Eclectic Physiology.

Library Books.

One of the duties of the State Board of Education is to prepare a list of books suitable for the township and district libraries of the State, and to biennially advertise for proposals for furnishing the books selected. During the past summer the list of books has been revised, and the contract for furnishing them awarded to Eaton, Lyon & Allen, of Grand Rapids, the lowest responsible bidders. The Superintendent of Public Instruction issued a circular to school officers, containing a list of books, etc., which will be found among the accompanying schedules herewith presented.

Conclusion.

In concluding this report the members of the Board wish to state that it has been their purpose rightly to understand the law with reference to the duties imposed upon them, and wisely to carry out its provisions.

In the disbursement of funds the Board have aimed to limit expenditures to

the appropriations made and the moneys received. No deficiencies exist in the financial affairs entrusted to our care, and it is with confidence that the Board ask for the necessary appropriations to meet the wants and growth of the Normor School for the coming two years, believing that the same generosity that has been extended to this institution by past Legislatures will not be withheld by those who are to make our laws in the next.

It is fitting that cognizance be here taken of the harmony of action and the unity of purpose that exist between the members of the Norman School Faculty and between the Faculty and the members of the Board, and it is the wish of each member of the Board of Education that these same relations may continue in the future.

GEORGE F. EDWARDS,
EDGAR REXFORD,
BELA W. JENKS,
HERSCHEL R. GASS,
State Board of Education.

Lansing, Mich., September 30, 1884.

A.

REPORT OF THE PRINCIPAL, FOR THE SCHOOL YEAR 1883-84.

To the State Board of Education:

GENTLEMEN—I herewith present a report of the State Normal School for the academic year 1883-84.

The year has been a prosperous one. The attendance in all the departments was as follows:

First Year	173
Second Year	132
Third Year (of the 4 year course)	64
Third Year (English course)	55
Fourth Year	43
Post Graduates	8
Total Normal Department	475
Practice School:	
Primary Department	85
Grammar Department	73
	633
Music Department and Conservatory of Music, not counted in the foregoing	38
Total	671

There were during the year 232 new students in the Normal department. Of these, 120 recorded themselves as having taught school; 47 one year and less than two years, 9 two years and less than three, 9 three years and less than four, 5 four years and less than five, 5 five years and less than six; 1 had taught six years, 1 seven, 1 seven and one-half, 1 eight, 1 nine and one-half, 1 ten, and 1 twelve years. The remainder had taught from 5 up to 40 weeks, the large majority one term or more.

The average age of the new students on entering was 20⅛ years.

One hundred presented certificates from high schools, graded schools, and other institutions of learning approved by the Faculty.

From the foregoing it will appear that the students on entering were of more than average maturity, a majority having already had experience in teaching, thereby being the better fitted to appreciate and improve the special training the Normal School offers. It will be seen, also, that the graded and high schools are an important factor in the education of the students that present themselves for this special instruction.

There were 190 appointments made by the senators and representatives in the Legislature from 47 different counties and 24 senatorial districts. The full number authorized under the rules of the Board is 264.

Diplomas were given to 102 persons. One in addition was issued to the family of a student of the senior class who died during the year. Of those diplomas 60 were in the English course, 7 in the Latin-German, 2 in the special music, 2 in the German scientific, 1 in the Latin literary, 3 in the classical, 11 in the scientific, 6 in the literary, 7 in the Latin scientific, 1 in the German classical, 1 in the French-German, 1 in the Latin-French, and 1 in the common school course. Twenty had the full course in Latin, four the full course in Latin and Greek, ten had the full course in German, and four in French. Of the 60 who took diplomas in the English course, more than one-half have taken studies in Latin, Greek, German, French, higher mathematics, the natural sciences, and literature, not required by the English, but not enough to entitle them to diplomas in the full four years' courses. We held to the requirements rigidly, so that the diplomas honestly represent work actually done.

The following is the list in detail of the

GRADUATING CLASS.

Alpheus C. Adair, Eng., Lowell.
Grace M. Ainslie, Eng., E. Onondaga, N. Y.
Lottie M. Anderson, Eng., Almont.
Amelia J. Alber, Lat. Ger., Watrousville.
Etta F. Baker, Eng., Saline.
Maude Ball, Eng., Corunna.
Jessie Bellows, Eng., Ypsilanti.
May M. Bishop, Eng., Litchfield.
Joseph Biscomb, Eng., Hancock.
Benjamin F. Buck, Eng., Stony Creek.
R. Miriam Burrows, Eng., Almont.
Mary L. Bassett, spec. mus., Ypsilanti.
Julia A. Ball, spec. mus., Hamburg.
Sallie M. Barker, Ger. sci., N. Lansing.
Kurnal R. Babbitt, lit. Lat., Northville.
Charles L. Blodgett, cl., Eaton Rapids.
Delbert W. Brewster, sci., Chula, Va.
Henry T. Coe, sci., Brighton.
Oscar W. Carus, Eng., Evart.
Lowella B. Chapman, Eng., Cassopolis.
Grace V. Chapman, Eng., Jackson.
Tillie J. Calhoun, Eng., Nora.
Lida M. Clark, Eng., Belleville.
Mary L. Collins, Eng., Homer.
Martha P. Conklin, Eng., Allen.
Nora M. Cutcheon, Eng., Portland.
George W. Cornish, Eng., Lawton.
Willis J. Champion, cl., Mosherville.
Lucie M. Cullyford, Lat. Ger., Houghton.
Ella A. Drake, Eng., Birmingham.
Emma J. Day, Eng., Hudson.
Emma Dohmstreich, sci., Plymouth.
A. Nettie Evans, Eng., Ypsilanti.
Eliza C. Edgecombe, lit., Deerfield.
Leonidas L. Evans, Lat. sci., Thurman, O.
Harriet A. Fox, Eng., Grand Rapids.
Mary H. Franklin, lit., Carson City.
Laura Foltz, Lat. sci., Portage, O.
Mary S. Gardner, Eng., Deerfield.
Fannie E. Glover, cl. Ger., Cassopolis.
Mary S. Hill, Eng., Detroit.
Josephine Hart, Eng., Williamston.
Luella T. Hendryx, Eng., Coldwater.
Hattie M. Hodge, Eng., Plymouth.
Anna B. Henjes, Eng., Douglas.
Ida L. Howe, Eng., Howell.
Adney A. Hall, sci., Grass Lake.
Warren C. Hull, sci., Constantine.
Mrs. Mina G. Hill, M. L., Chelsea.
Emma Kimes, Eng., Ypsilanti.
Emma L. Kent, Eng., Greenville.
Lola G. Keatley, lit., Dowagiac.
Carrie L. Levens, Eng., Jonesville.
Andrew J. Lynd, Eng., Marlette.
Mrs. Van Laird, Ger. sci., Sherwood.
L. Belle Meacham, Eng., Adamsville.
Flora McDonald, Eng., West End.
James R. Montgomery, Eng., Rockford.
John B. Montgomery, Eng., Rockford.
Richard E. Murtha, Eng., Salt River.
Adam Mackie, Lat. Ger., Almont.
Melinda Mills, lit., Hope.
Minnie McGill, Lat. sci., Ypsilanti.
A. Jay Murray, sci., Ypsilanti.
Lida J. Nichols, Eng., Bedford.
Dora L. Nichols, Eng., Bedford.

Fitz Roy Osborne, Eng., Mendon.
Adelbert Power, Eng., Ovid.
Emma E. Pretty, Eng., Spring Arbor.
Amos B. Perrin, Eng., Reed City.
Jeanie Rowan, Eng., Almont.
Violette M. Riggs, Eng., Belleville.
Mulford J. Reed, Eng., Howell.
Georgia M. Robinson, Eng., Battle Creek.
George A. Rowe, sci., Waterloo.
Fred D. Rolison, Lat. sci., Brighton.
Carrie Richards, Fr. Eng., Ypsilanti.
Kittie Simon, Eng., Almont.
Phebe Stevens, Eng., Redfield.
Laura A. Smith, Eng., Ionia.
Nellie E. Stower, Eng., Three Rivers.
Louise M. Shepherd, Eng., Ruby.
Gertrude F. Shaffer, Lat. Ger., Redfield.
Sadie Shaffer, Lat. Ger., Redfield.
Minnie Spalding, Lat. Ger., Petersburg.
Hattie A. Shankland, lit., Ypsilanti.
Mattie Sherwood, sci., Stanton.
Dora M. Seaman, C. S., Walnut Creek, Cal.
Libbie C. Thayer, Lat. sci., Saline.
Nora Transue, Lat. Ger., Saranac.
Mrs. Grace V. Taylor, sci., Bronson.
Hugh S. Townsend, sci., Saline.
Charles O. Townsend, sci., Saline.
*Laura M. Towner, Lat. Fr., Ypsilanti.
Mrs. Ella Clements Vroman, lit., Ypsilanti.
Effie M. Vining, Eng., Wayne.
Nettie E. Vliet, Lat. sci., Clarkston.
Lucretia Waters, Eng., Belleville.
Clarence E. Whitney, Eng., Mt. Clemens.
James A. Wiles, Eng., Canton.
Arthur O. Wilkinson, cl., Ypsilanti.
Walter W. Weeks, Lat. sci., Leslie.

* Deceased.

There were as usual four classes in German and three in French, the beginners' class in German being the largest, numbering between 40 and 50, the other classes ranging from 10 to 20 each. Many of the students had pursued the study of modern languages one or more years in other institutions before entering the Normal School. The method of instruction in these languages has reference to the peculiar wants of the students as teachers, both in respect to the law of language and the best methods of presenting the subject to young pupils. The second year's class in German was taught by Miss Barton, who proved herself an able and very conscientious teacher.

The Library.

The operations of the library this year have been more than usually satisfactory. There has at all times been the most earnest demand for books, frequently filling the reading room to its fullest capacity. The most casual visitor could not fail to see that there was a spirit of original, diligent work. While the library is not large, it has been wisely selected and is especially rich in the choice works in literature, history, and the sciences. The methods of instruction in the Normal School find their best exemplification in the use of the library—in the original, not simply text-book work, that runs through all the departments. There were during the year over 30,000 calls for books, exclusive of the books used by the teachers, and the several hundred volumes distributed in the departmental libraries, which latter are almost constantly in use. The percentage of the various classes of books drawn is approximately as follows: History, 25 per cent.; Education and Mental Philosophy, 13 per cent.; Cyclopædias and Dictionaries, 12 per cent.; Literature, 15 per cent.; Fiction, 10 per cent.; the remaining 25 per cent. being mainly works on Political Science, the Natural and Physical Sciences, and the Arts.

The number of volumes on the shelves July 1, 1884, was 5,973, of which 1,216 had been added the twelve months preceding. Two hundred and sixty volumes are strictly educational works. The number of newspapers and magazines is thirty-six, including three daily papers and nine educational journals. The utility of the library is greatly enhanced by the card catalogue which was commenced by Prof. Putnam five or six years ago, and which has been added to ever since, so that it now contains about 18,000 cards, those for authors and titles being complete. Over 4,000 cards were written by Miss Goodison, the

assistant, last year. The employing of Miss Goodison has been of great benefit, and I can but express the satisfaction all feel in the more systematic oversight of the details, and the conscientiousness with which she has performed the frequently unpleasant task of keeping the strictest account of all the books taken from the library, deserves special mention. In spite of the large number of books constantly in use, there are not exceeding half a dozen which cannot be accounted for. In view of the value of the library as used and the care taken in its preservation, I hope the appropriation of the $1,500 annually will be continued.

The Museum.

At the beginning of the year the museum was in a most demoralized condition. For reasons not now necessary to detail, it had been almost entirely neglected for some years. In the reconstruction of the building the cases that held the specimens had disappeared, and what we had lay in piles or scattered over the floor. There seemed no other way than to begin anew and reörganize it, and the best way was to put the department of Natural History into the room, and make it the work-shop for teachers and classes in the re-classification and arrangement of what material there was on hand. Additional steam coils were put in so that the room was at all times comfortable for class work. New cases were made and in time order was eliminated out of the confusion. The birds were dusted and properly mounted, the minerals were newly labeled and arranged in due order, and whatever could be preserved was made the most of, so that the appearance is now quite respectable, though far short of what is demanded for such an institution. Much credit is due Mrs. Osband, the instructor in Natural History, and her students for the patience and diligence with which these results have been accomplished. The Board appropriated $300 for plaster casts from Ward's museum at Rochester, and new material from old graduates and persons interested in the work has been dropping in, and the future of the museum promises to be more nearly worthy of the institution, if the Legislature shall give us some special aid. I feel that an appropriation of $1,000 for that special purpose would make the museum fairly creditable.

The Professional Work of the School.

I am not prepared at this time to solve the "Normal School" problem, and shall not discuss it to any great length. I shall note only the most obvious points that have impressed themselves upon me during the year I have given this work.

In the first place, there is no question that the public mind is convinced that "Normal" instruction of the proper kind is desirable, and is one of our most efficient aids in the education of youth. This is evinced by the continued hearty support given to institutions specially assigned to that work throughout the educational world. In popular judgment, Normal schools are not a failure, though falling short of the sanguine expectations of their most ardent promoters.

Secondly. The Normal school is not a mere academy. It has no right to exist at all if that is its prime function. Its chief office is to teach how best to teach. Academic work treats of the subject matter of a study. Normal work has for its sphere the best methods of imparting, instructing, suggesting, and developing. Theoretically it has been claimed that each should be strictly

confined to its sphere—that the academy, high school, or college should have the sole supervision of the subject matter and the Normal school of the methods. Like all theories, this one fails in its extreme. Academies in fact, in teaching, to some extent, teach how to teach, though it is only incidental, and Normal schools are compelled from the situation to teach the subject matter of a study, though that should be only an incident and always subordinate to the higher purposes of the methods. The compulsion for a part, at least, of this academic work lies in the fact that as a rule but few students present themselves at the doors of the Normal school so thoroughly founded in the subject matter as to be fitted for successful training in the methods. Therefore, every successful Normal school must have the educational machinery to work out the material for its objective purpose, instruction in the art and science of teaching.

Third. Normal instruction is best secured in connection with actual teaching. The average mind of the average student cannot well comprehend any theory in the abstract, but can best grasp it when concurrently applied to the fact. Hence, for the multitude of teachers, that system is fraught with the best results which shall bring the application into as close connection as possible with the theory. Some few may be able to retain the principles of a science and carry them into practice when occasion offers, but to a majority the principles will be to them hardly a lasting verity. For this reason a course of lectures, of itself however able, cannot supply the want. There should be somehow at hand the actual demonstration, the practical application. This may be in the school itself, which may be a model, a practical exemplification of the theory, or there may be at hand the actual school of practice in which the principles are put to test, or both may be combined as part of the system. The last is the plan of most of the Normal schools as now operated, and is the plan of the Michigan State Normal School. It, as its daily life, is the model of what a school should be, in its routine of duty, its study halls, its movement of classes, its records, its order, and system. No student can enter into its daily life, or for one or more years be a part of it, without having cultivated that teacher's "sense" that shall feel and know what it is to "have a school well in hand." No theory can take the place of that experience. Then there is connected with the school, under its supervision, a school of observation and practice; a fully graded school taught by the students, where, under the eye of experienced teachers, they apply the principles and theory in which they are instructed in the Normal department. There can be no doubt of the philosophical correctness of the plan. Do the results harmonize with the philosophy? I believe they do. In the nature of things, a school whose professed object is to fit teachers for their work will be actuated by a different spirit from one that has not that object in view. The students will talk, write, and orate about teaching and the teacher's mission, and this professional tone will permeate all their work, including the academic, so that they live and move and have a being in this special work. The more the professional tone is fostered, the happier the results. I believe it exists in a marked degree in the Michigan State Normal School.

This school for observation and practice consists of a fully graded school, with primary and grammar departments. The value of such a school depends largely upon the use made of it, the efficiency of the work done, and the time and energy of the teacher devoted to it. My first impression of the subject before, and in fact, after observing the work done in other institutions as well as our own, was, that there was, if I may be pardoned the expression, too much

"playing at teaching school," and not enough of the genuine, positive, self-reliant work that would fit a person to take charge of and handle a school. I found that the teachers, consisting, generally, of the students of the Normal school proper, then in the senior class, had, as a rule, their minds too fully engrossed in the academic work to give their best energies to the practice school; that in studying the subject matter, they had but little time to give to the "how best to teach;" that they were distracted, without sufficient definite purpose or unity of thought to accomplish the best results. In many parts of the country I found the "Practice School" was more or less in disfavor, and that it was not of a benefit corresponding to the outlay. But I came to the conclusion that this state of things was not from any inherent defect in the plan, but in its operations. I found that when the prime object was academic, and the professional incidental, the practice school was a makeshift, perfunctory in its character; but where the tone was professional, and the facilities were ample, the practice school was a live institution. With these facts in mind (and the Faculty of our institution was a unit in the opinion that something more should be done in this direction), we have sought to put our practice school in line with the most approved work. We have insisted, and are insisting that the last year's work of the student shall be more strictly professional, that the student shall be more fully equipped with the subject matter, shall have less to do in academic work. We have further sought to avoid the distraction to teachers of recitations in their own studies by putting the practice school in the afternoon, when the Normal School proper is not in session. We believe the change will be salutary. In the first place, the school can be handled easier, there is no conflict between the hours of teaching and the hours of recitation. In the next place, the teacher is not embarrassed with the sense of an unsatisfactory recitation, just closed, as often happens, and the apprehension of an impending one, and therefor there may be singleness of thought in the work of the practical training. There is no doubt that an advanced step has been taken in this line of work, and we firmly believe that if our purpose can be fully carried out, we may place this department of our institution well to the front, and will be able to show results that shall silence all cavil.

But in order to do this with success, the student should come to us more fully equipped, or should stay with us longer. The experience of the last year has shown that the change made at its opening, by which we refused to take certificates from other institutions in the studies required for a third grade certificate, was a most necessary and desirable one. We gave every new student a thorough examination in Reading, Writing, Orthography, Arithmetic, Grammar, Geography, U. S. History, and Civil Government. Of the 232 new students admitted, over one-half failed to pass some or all of these studies, and had to be placed in the regular classes. There was but little difference in this respect between the graduates of the high schools, and the scholars direct from the common district schools of the State, for the very good reason, I suppose, that the graduates of our high schools studied those branches while they were children, and after that had been crowded rapidly along in a large range of higher studies, while the students from the district schools as a rule came fresh from work in these primary branches. We found large numbers who would pass a better examination in the higher than the lower branches. Our English course of three years is formed largely with the idea that the graduates of the average high school can readily make it in one year, which should, of

course, be largely professional, and therefore for years certificates from these high schools were taken in all studies. But since the above change, we have the anomaly of students in the senior class studying the primary branches and at the same time attempting to teach them in the practice school. When brought face to face with what was required, students who have studied Algebra and Geometry cheerfully take up Arithmetic, and those who have taken a course in Rhetoric and cognate studies, go readily into Grammar again, so that they bring their more mature minds to the consideration of these branches, with a benefit that surprises them.

I make these remarks with no intention in any way of depreciating the work of our high schools, but to state a fact, and to explain how it comes to exist, and for the purpose of impressing upon the consideration of the public and upon students who may desire to enter the Normal School, the necessity that is imposed upon us of requiring a more thorough knowledge of these branches before entering, so as to reap the best results from the special work of the institution. If the study of these branches is to be added to the regular last year's work in the course, it is manifest that the average student has more than can be thoroughly done; hence we urge students to come better prepared, or to stay longer. We might perhaps enlarge the number of studies in which we decline to receive certificates, but we are not yet prepared to take that step. It may be that the range of studies in our schools is too wide, and that a thorough examination in them, such as ought to be required of persons who must teach them, would show a similar state of facts with relation to the studies in which we receive certificates. But of this at the present we cannot speak with authority. It may be argued that in the attempt of our high schools to compass so many studies, usually covered by college courses, there is a place for some institution like the Normal School that shall lead to a thorough review not only of the primary but of higher studies, and that therefore the time may come for us to insist on an examination in all branches taught in the public schools of the State; an examination that shall test the qualifications, including subject matter and ability to teach, of all students who shall enter our doors. But this much is now clear: we shall insist on a thorough knowledge of the old fashioned common branches, to which the great majority of the scholars of the State are limited, either from necessity or choice, and that shall be our first special purpose. There is discipline in them, properly taught, and they are practical.

The English Tongue.

We believe we have made an advance during the year in the work in the English Language. The appropriation of the last Legislature has enabled us to make English Language and Literature a distinct department, with teachers whose special work is in this line of instruction. This enables them to know each student personally, and his defects in Spelling, Grammar, Rhetoric, and Literature, and to follow him at all steps with personal supervision. I need not enlarge on the crudity of the average student in his mother tongue. All teachers and school officers have realized the necessity of a more systematic training in correctness and facility of expression, both oral and written.

Our Needs.

The Normal School has increased in numbers for the last two years, the last year nearly 100. From present prospects we shall have at least 100 more next

year, and after looking the ground over, I am confident we can place within three years 800 students in the Normal School proper. The present graduating class is 103, and the next will be about the same. Inside of two years, even under the increased stringency of our requirements, it will number 150. Public sentiment is responding heartily to our determination to place the school in the front of institutions of the kind in the country, and though by throwing out the old common school course of two years, and making our lowest course the English of three years, we lost a large block of students, and though we lost largely because we insisted on an examination in the studies required for a third grade certificate, still in the face of this change, our numbers increased. I firmly believe that in the end, as these changes are fully appreciated, they will contibute to the popularity of the institution. The people of the State desire thoroughness, and an assurance that our graduates are fully competent to teach. Fully convinced of these facts we shall have all the students we can handle.

In this view of the case we want more room. For the reasons given above we need ample study-halls. This institution is not like an ordinary college in its requirements, where all that is needed is the chapel, library, and recitation rooms; where the students study their lessons at their rooms and go to recite at stated hours. Ours is a sample school in all its phases, where the student reports as rigidly as in a graded school, and goes through the daily movements, and for the full day. Therefore we need for the increasing number more study-hall room. The three study-halls we now have, two for ladies and one for gentlemen, were not full two years ago. They are now full to overflowing. There will be ladies to more than fill the three next year, and we shall be obliged to use the chapel for the gentlemen. The chapel is in the third story, and the lowest recitation room in the building is the laboratory, in the basement. Five times a day the gentlemen are obliged to climb three flights of stairs, and the ladies two. This is manifestly unwise, not to say injurious.

Again it is desirable that there should be one study-hall large enough to seat all the ladies. The preceptress has the special charge of the ladies, as regards their deportment, etc., which makes it advisable that at least once a day she may see them all at one time and alone. Matters which have to be repeated in three or more different rooms lose much of their force, and the effect is to distribute that personality which ought to be a unit. Therefore I suggest the erection of an addition, a building say 60 by 100 feet, in the second story of which shall be a study-hall of the full size, less the corridor, to accommodate about 500 students, for the ladies. We can use two of the present study-halls for the gentlemen. One will not now hold them. The third story of the addition may be utilized for the department of physical sciences, which is now distributed from the basement to the dome for our astronomical instruments. The lower story will be needed for enlarged facilities for the practice school. This school now has seating capacity for 160 pupils. We shall want room for 250. With the increasing number of seniors who are to teach, we shall want more students and more recitation-rooms for this department. We need more room for the library, which is now packed full of students hungry for the special information it affords. This may be done by taking in the large recitation-room now used by the professor of modern languages.

All these facilities may be furnished by the addition above described. With them, I believe we can handle twice the number of students we had last year at

25 per cent. extra cost; we can provide for 800 students in the Normal School department and do the work well.

The corps of instructors for the year was as follows:

Edwin Willits, M. A., Principal, Political Science, Civil Government, and School Law.

Daniel Putnam, M. A., Mental and Moral Science, and Theory and Art of Teaching.

Julia A. King, Preceptress, History.

Frederic H. Pease, Vocal and Instrumental Music, and Director of the Conservatory of Music.

Charles Fitz Roy Bellows, M. A., C. E., Mathematics.

Louis McLouth, M. A., Ph. D., Physical Sciences.

Joseph P. Vroman, M. A., Latin and Greek Languages.

August Lodeman, German and French Languages.

Austin George, M. A., Vice Principal and Director of the School of Observation and Practice.

Helen Post, Critic in Grammar Grades of School of Observation and Practice.

Fannie E. Goffe, Drawing, Penmanship, and Book-keeping.

Ann Janette Bignell, Instructor in English.

Ency J. Coleman, Critic in Primary Grades of School of Observation and Practice.

Lucy A. Osband, M. A., Natural Sciences.

Lois A. McMahon, Instructor in English Literature.

Rose V. Barton, Instructor in History and German.

William H. Brooks, Instructor in Greek, Latin, and Geography.

George F. Key, Instructor in Mathematics.

Miss McMahon was engaged the first of April, 1884, at a salary of $700 a year. The chair of professor of English Language and Literature was not filled, but is to be filled the coming year by the appointment of Rev. Theodore Nelson, M. A., late acting president of Kalamazoo College, a gentleman of eminent abilities and repute in the State. There has been but little extra help, and that only in the way of occasional employ of students in the necessary division of the larger classes.

In conclusion, I thank the State Board of Education and the whole corps of instructors, for their most hearty and unqualified coöperation and confidence. In this, my new work, I had need for the fullest charity, and I have received it from all quarters.

I have the honor to present the following exhibits, which more fully comply with the law and furnish information relating to the Normal School.

EDWIN WILLITS,
Principal.

Normal School, Ypsilanti, June 30, 1884.

EXHIBIT A.

COURSES OF INSTRUCTION.

SCIENTIFIC COURSE.

First Year.

First Term.—1. Arithmetic. 2. Grammar and Composition. 3. History of the United States. 4. Vocal Music.

Second Term.—1. Algebra. 2. Local, Mathematical, and Physical Geography. 3. Botany. 4. Object Drawing.

Second Year.

First Term.—1. Algebra. 2. General History. 3. Rhetoric. 4. Physiology and Hygiene, 15 weeks; Professional Training in Geography, 5 weeks. Essays.

Second Term.—1. Geometry. 2. English Literature. 3. Elementary Physics. 4. Penmanship, 10 weeks; Zoölogy, 10 weeks. Essays.

Third Year.

First Term.—1. Geometry. 2. Comparative Zoölogy and Physiology, 10 weeks; Civil Government, 10 weeks. 3. Geology, 10 weeks; Book-keeping, 10 weeks. 4. Mental and Moral Science, and their Application to Teaching. Essays.

Second Term.—1. Higher Algebra. 2. Drawing. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. School Organization, Government, etc. Essays.

Fourth Year.

First Term.—1. Chemistry. 2. Higher Physics. 3. Professional Training in Reading and Orthography, 10 weeks; History of Education, etc., 10 weeks. 4. Practice Teaching. Essays.

Second Term.—1. Chemistry, 10 weeks; Astronomy, 10 weeks. 2. Trigonometry and Surveying. 3. Political Science, 10 weeks; Training in Physical Science, 10 weeks. 4. Practice Teaching. Essays.

LITERARY COURSE.

First Year.

First Term.—1. Arithmetic. 2. Grammar and Composition. 3. History of the United States. 4. Vocal Music.

Second Term.—1. Algebra. 2. Local, Mathematical, and Physical Geography. 3. Botany. 4. Object Drawing.

Second Year.

First Term.—1. Algebra. 2. General History. 3. Rhetoric. 4. Physiology and Hygiene, 15 weeks; Professional Training in Geography, 5 weeks. Essays.

Second Term.—1. Geometry. 2. English Literature. 3. Elementary Physics. 4. Penmanship, 10 weeks; Zoölogy, 10 weeks. Essays.

Third Year.

First Term.—1. Geometry. 2. English Literature, 10 weeks; Civil Government, 10 weeks. 3. Grecian and Roman History. 4. Mental and Moral Science, and their Application to Teaching. Essays.

Second Term.—1. English History. 2. American Literature. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. School Organization, Government, etc. Essays.

Fourth Year.

First Term.—1. Chemistry. 2. General Literature. 3. Professional Training in Reading and Orthography, 10 weeks; History of Education, etc., 10 weeks. 4. Practice Teaching. Essays.

Second Term.—1. American History. 2. Advanced Rhetoric, etc. 3. Political Science, 10 weeks; Training in Physical Sciences, 10 weeks. 4. Practice Teaching. Essays.

LANGUAGE COURSE.

First Year.

First Term.—1. Latin or German. 2. Physiology and Hygiene, 15 weeks; Professional Geography, 5 weeks. 3. History of the United States. 4. Vocal Music.

Second Term.—1. Latin or German. 2. Algebra. 3. Arithmetic. 4. Penmanship, 10 weeks; Civil Government, 10 weeks.

Second Year.

First Term.—1. Latin or German. 2. Greek or French. 3. Algebra. 4. Rhetoric. Essays.

Second Term.—1. Latin or German. 2. Greek or French. 3. Geometry. 4. Elementary Physics. Essays.

Third Year.

First Term.—1. Latin or German. 2. Greek or French. 3. Geometry. 4. Mental and Moral Science, and their Application to Teaching. Essays.

Second Term.—1. Latin or German. 2. Greek or French. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. School Organization, Government, etc. Essays.

Fourth Year.

First Term.—1. Latin or German. 2. Greek or French. 3. Chemistry. 4. Practice Teaching. Essays.

Second Term.—1. Latin or German. 2. Greek or French. 3. Political Science, 10 weeks; Training in Physical Sciences, 10 weeks. 4. Practice Teaching. Essays.

ENGLISH COURSE.

First Year.

First Term.—1. Algebra. 2. Grammar and Composition. 3. Local, Mathematical, and Physical Geography. 4. Object Drawing.

Second Term.—1. Algebra. 2. Grammar and Composition. 3. Arithmetic. 4. History of the United States.

Second Year.

First Term.—1. Algebra. 2. Penmanship, 10 weeks; Reading and Orthography, 10 weeks. 3. Rhetoric. 4. Physiology and Hygiene, 15 weeks; Professional Training in Geography, 5 weeks. Essays.

Second Term.—1. Geometry. 2. Vocal Music. 3. Elementary Physics. 4. Literary Reading, 10 weeks; Civil Government, 10 weeks. Essays.

Third Year.

First Term.—1. Chemistry or Botany. 2. General History. 3. Mental and Moral Science, and their Application to Teaching. 4. Practice Teaching. Essays.

Second Term.—1. Political Science, 10 weeks; Laboratory Practice, 10 weeks. 2. School Organization, Government, etc. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. Practice Teaching. Essays.

SPECIAL COURSE WITH MUSIC.

First Year.

Any one of the other courses which the student may select with the approval of the Principal.

Second Year.

First Term.—1. Elements of Vocal Music with Methods of Instruction. 2. Algebra. 3. Rhetoric. 4. German, French, or Latin. Essays. Instrumental Music may be substituted for 2, 3, or 4.

Second Term.—1. Advanced Vocal Music and Voice Culture. 2. Elementary Physics. 3. English Literature. 4. German, French, or Latin. Essays. Instrumental Music may be substituted for 2, 3, or 4.

Third Year.

First Term.—1. Harmony. 2. Voice Culture. 3. Mental and Moral Science, and their Application to Teaching. 4. German, French, or Latin. Essays. Instrumental Music may be substituted for 4.

Second Term.—1. Harmony. 2. Voice Culture. 3. School Organization, Government, etc. 4. German, French, or Latin. Essays. Instrumental Music may be substituted for 4.

Fourth Year.

First Term.—1. Musical Composition and Literature of Music. 2. Solo Singing. 3. Language of Literature. 4. Practice Teaching. Essays. Instrumental Music may be substituted for 3.

Second Term.—1. Solo Singing. 2. Literature. 3. Professional Training in Arithmetic, 10 weeks; in Grammar, 10 weeks. 4. Practice Teaching. Essays. Instrumental Music may be substituted for 2.

SPECIAL COURSES.

Latin, German, or French may be substituted as follows:

SCIENTIFIC COURSE.

First Year.

In place of any subject in which the student shall pass a satisfactory examination.

Second Year.

First term, in place of General History. Second term, in place of English Literature.

Third Year.

First Term, in place of Comparative Zoölogy and Book-keeping. Second term, in place of Higher Algebra.

Fourth Year.

First term, in place of Higher Physics. Second term, in place of Trigonometry and Surveying.

LITERARY COURSE.

First Year.

In place of any subject in which the pupil shall pass a satisfactory examination.

Second Year.

First term, in place of General History. Second term, in place of English Literature, 10 weeks, and Zoölogy, 10 weeks.

Third Year.

First term, in place of Grecian and Roman History. Second term, in place of American Literature. In this case, General History will take the place of English History.

Fourth Year.

First term, in place of General Literature. Second term, in place of Advanced Rhetoric. In this case, English History will take the place of American History.

COURSE IN FRENCH.

Fall Term—First 10 Weeks.

First Year.—Pronunciation and Reading.—A rudimentary knowledge of the various parts of speech; oral and written exercises on the auxiliary verbs, articles, nouns, pronouns, adjectives, adverbs.

Second Year.—Michelet: La Revolution.—Grammar: daily exercise in connection with the reading lesson; use of prepositions after verbs, etc.; idioms and conversation.

Third Year.—Chassang, French Grammar (in French). Every other day.

Second 10 Weeks.

First Year.—Reading and Conversation:—Exercises on the use of the forms of the regular verbs; numerals; some irregular verbs.

Second Year.—Corneille: Le Cid; Victor Hugo: Hernani.—Grammar, as in first 10 weeks. Irregular verbs reviewed.

Third Year.—Chassang continued. Every other day.

Spring Term—First 10 Weeks.

First Year.—Reading and conversation.—Exercises on the use of pronouns and the more common irregular verbs.

Second Year.—Moliere: Le Misanthrope.—Grammar, as during Fall Term. Use of the subjunctive.

Third Year.—Legouvé: La Lecture en Action. Every other day.

Second 10 Weeks.

First Year.—Mme. de Girardin: La Joie Fait Peur; Scribe et Legouvé: La Bataille des Dames.—All the irregular verbs.
Second Year.—G. Sand: La Mare au Diable.—Moliér.e—General review of the grammar as suggested by the reading lessons. Idioms.
Third Year.—Legouvé: La Lecture en Action. Every other day.
Other authors may be substituted as equivalents for those named above.

COURSE IN GERMAN.

Fall Term.—First 10 Weeks.

First Year.—Pronounciation, reading, and conversation.—A rudimentary knowledge of the various parts of speech; the most necessary rules of syntax.
Second Year.—Gœthe's Hermann and Dorothea.—Order of words in sentences; simple, assertive, and interrogative; three cases of nouns. Whitney, Ex. 16–20.
Third Year.—Gœthe's Prosa (Hart's Edition).—Use of the modal auxiliaries; modes and tenses of verbs.—Whitney, Ex. 38–49.
Fourth Year.—Conversation and general review of the grammar. Every other day.

Second 10 Weeks.

First Year.—Reading and conversation continued.—Articles; auxiliary verbs; some irregular verbs; declension of adjectives. Whitney, Ex. 1–6.
Second Year.—Gutzkow's Zopf und Schwerdt.—Order of words in sentences; assertive, interrogative, inverted; use of prepositions; prepositional phrases. Whitney, Ex. 21–25.
Third Year.—Scientific Essays (Hodges).—German letters and essays.
Fourth Year.—Gœthe's Iphigenie, or Faust. Every other day.

Spring Term.—First 10 Weeks.

First Year.—Reading, etc., continued.—Irregular verbs; pronouns; numerals. Whitney, Ex. 7–13.
Second Year.—Schiller's William Tell.—Order of words in sentences; dependent order; irregular verbs mastered. Whitney, Ex. 26–29.
Third Year.—German letters and essays.—Heine's Prose and Lyrics.
Fourth Year.—Hermann Grimm's Essays. Every other day.

Second 10 Weeks.

First Year.—Lessing's Minna von Barnhelm.—Passive, reflexive, impersonal verbs; compound verbs. Whitney, Ex. 14–15.
Second Year.—Paul Heyse's Anfang und Ende, or Spielhagen's Roeschen vom Hofe.—Special uses of the article, the pronoun, the cases of the noun. Whitney, Ex. 30–37.
Third Year.—Heine continued.
Fourth Year.—Selections from German Literature; methods of teaching living languages. Every other day.

Normal Conservatory of Music.

The course in vocal music in the Normal School is sufficiently extensive and thorough to prepare teachers to give the elementary instruction usually required in this subject in the public schools; yet, there is a great demand for teachers who can do higher work than this course contemplates—teachers who are fully prepared to conduct choral classes and give instruction in instrumental music. In view of this fact, the State Board of Education have arranged with the professor of music in the Normal School to organize and become director of the Normal Conservatory of Music, thus associating with himself able and efficient instructors in the various departments of the science and art of music, and providing, without any additional expense to the State, ample opportunities to students in the Normal School to pursue to any desired extent the study and practice of vocal and instrumental music. Those intending to pursue studies in the Conservatory should apply for special circular.

EXHIBIT B.

TEXT AND REFERENCE BOOKS.

English Grammar and Composition.—*Swinton.*
English and American Literature.—*Shaw, Royse.*
United States History.—*Bush's Berard, Eliot, Ridpath.*
General History.—*Anderson's Series.*
Zoölogy.—*Tenney, Orton, Packard.*
Botany.—*Wood, Gray, Bessey.*
Geology.—*Dana, Winchell.*
Physiology.—*Brown, Hutchinson.*
Book-keeping.—*Williams and Rogers.*
Elementary Algebra.—*Bellows.*
Higher Algebra.—*Olney.*
Arithmetic (methods).—*Bellows.*
Geometry.—*Bellows.*
Trigonometry.—*Bellows.*
Rhetoric.—*D. J. Hill.*
Elementary Physics.—*Gage.*
Higher Physics.—*Gillet and Rolfe.*
Chemistry.—*Youmans, Barker.*
Astronomy.—*Newcomb and Holden.*
Latin Grammar.—*Allen and Greenough.*
Latin Reader.—*Allen and Greenough.*
Cæsar.—*Allen and Greenough.*
Cicero.—*Allen and Greenough.*
Virgil.—*Allen and Greenough, or Frieze.*
Horace.—*Lincoln.*
Greek Grammar.—*Goodwin and Hadley.*
First Greek Book.—*White.*
Anabasis.—*Goodwin.*
Sketches from Historians.—*Boise and Freeman.*
Iliad.—*Boise.*
History of Greece.—*Smith.*
Science and Art of Teaching.—*Putnam.*
Mental Science.—*Hamilton, Haven.*
Moral Science.—*Lectures.*

Books used in the Department of Modern Languages are indicted in the description of the courses in that department.

TEXT BOOKS USED IN PRACTICE SCHOOL.

Arithmetic.—*Bellows, Olney.*
Language.—*Swinton, Reed and Kellogg.*
Readers.—*Modern School.*
Geography.—*Appleton, Our World.*
United States History.—*Higginson, Swinton.*
Penmanship.—*Spencerian.*
Dictionary.—*Webster.*

Other books are used when desirable.

EXHIBIT C.

STATISTICS OF TEACHING AND GRADUATES.

1. Number of graduates in the full courses from the State Normal School from 1870 to 1880, inclusive	294
2. Number of those who are known to have engaged in teaching	270
3. Number from whom no report has been obtained	10
4. Number known not to have engaged in teaching	14
5. Per cent. known to have engaged in teaching	92
6. Average length of time taught on the basis of the whole number of graduates	5 years.
7. Average length of time taught on the basis of the number engaged in teaching	5.5 years.
8. Number of male graduates	126
9. Number of males known to have engaged in teaching	113
10. Number of males from whom no report has been obtained	2
11. Number of males known not to have engaged in teaching	11
12. Per cent. of males known to have engaged in teaching	89
13. Average time taught on the basis of the whole number of male graduates	5 years.
14. Average time taught on the basis of the whole number of male graduates who engaged in teaching	5.6 years.
15. Number of female graduates	168
16. Number of females known to have engaged in teaching	157
17. Number of females from whom no report has been received	8
18. Number of females known not to have engaged in teaching	3
19. Per cent. of females known to have engaged in teaching	93
20. Average time taught on the basis of the whole number of female graduates	5 years.
21. Average time taught on the basis of the number of female graduates who have engaged in teaching	5.4 years.
22. Number of male graduates known to have died	8

23.	Number of female graduates known to have died	4
24.	Total time that could have been taught if all these graduates had been teaching from the date of their graduation to the present time; *i. e.*, if all had at once gone to teaching, if none had died, stopped for a reason, or abandoned the profession	3,380 years.
25.	Males could have taught	1,240 "
26.	Females could have taught	1,334 "
27.	Time actually taught by these graduates	1,488 "
28.	Time actually taught by male graduates	639 "
29.	Time actually taught by female graduates	849 "
30.	Per cent. of actuality to possibility on the basis of the whole number of these graduates	62
31.	Per cent. of actuality to possibility on basis of male graduates	61
32.	Per cent. of actuality to possibility on basis of female graduates	63.6
33.	Whole number of graduates in all courses, from 1854 to 1884, inclusive	1,188

B.

REPORT OF THE VISITORS FOR 1883-84.

HON. HERSCHEL, R. GASS,
Superintendent of Public Instruction:

SIR,—The committee appointed to visit the State Normal School respectfully submit the following report:

A careful inspection and examination of the State Normal School at three several visits, each extending over a period of several days, has greatly enhanced our appreciation of the importance of the place it now holds in our educational system, and of the great advance that has been made in its methods and work within the past few years.

We visited and examined the school unannounced, that we might the better judge of its every day work. We attended class recitations and examinations in every department, were present at one or more recitations to each instructor, besides attending numerous public exercises and nearly all the exercises of commencement week. To say that the instruction was thorough, systematic, comprehensive, and professional, and that the interest and enthusiasm of the pupils were thoroughly aroused and their knowledge carefully tested would but feebly express our appreciation. In most of the classes questions and answers gave evidence that the text-books in use were only guides, while more extensive works and authorities in the library and elsewhere had been consulted and examined. In history, United States and general, philosophy, rhetoric, literature, school organization and government, civil government, and political economy, and in all branches relating to professional training this was especially noticeable.

The Conservatory of Music, under Prof. Pease, was exceedingly interesting, and the music, both vocal and instrumental, was of superior excellence. Seldom have we heard such a choir as we found at the Normal, consisting of more than one hundred members, all with thoroughly trained and cultured voices.

The methods of instruction, and the interest aroused in several of the classes, were very marked, and merit special notice, but we forbear lest, while expressing just aproval of some, others equally worthy of mention may be omitted.

The new building for the accommodation of the Training School, has

enabled the Normal to give much more attention and prominence to this department, and no graduate is now permitted to go out with a diploma certifying to his or her fitness to teach without, not only a thorough education and knowledge of the *theory* of teaching, but also with some months' *practical experience* in teaching in each grade of a graded school of superior excellence, under the supervision of one of the most experienced and most successful teachers of the State. The granting of certificates as graduating from the common school course has been discontinued, and a three years' course is the shortest allowed for graduation. Both the Board of Education and the Faculty are fully determined that no one shall graduate and receive a diploma who is not only fully prepared in the text-books of the schools, but who by special training and practice in teaching, and by study and culture in history, literature, political economy, and the science of government, shall be able to interest and lift up, not only the schools in which they may teach, but the communities in which they may reside.

All of the professors and most of the instructors are doing thorough and excellent work. We noticed one or two exceptions where, either from want of interest or of natural fitness on the part of the instructors, the pupils were not well prepared and seemed indifferent, and we brought the matter to the attention of the Principal.

Another matter, not in the line of *literary*, but of general culture and of health, which we regard as important, seems to us to require more attention. We allude to the carriage of the pupils while moving to the sound of music to and from study-rooms, recitations, etc. While perfect order was maintained, too little attention was paid to erectness of position and grace of movement. These are to some extent matters of habit, and deserve special attention on the part of teachers in all our schools, and especially in the Normal School, which is fitting such teachers for their life work.

Objection has been made to the Normal, that it has subserved its purpose, has done its work, and is no longer required, and that as a matter of fact but few of its graduates follow teaching as a profession. Careful examination of the records and a full inquiry into the location and occupation of the graduates, especially those from the full courses of study, develop the fact that much more than a majority of them have made teaching a life work, that they have been generally successful, and are in demand for our best graded schools. The graduates of our high schools and colleges who propose to make teaching a profession, are coming to understand the importance of taking a course after college graduation in the Normal School before entering upon their life work; and never, it seems to us, did the Normal have a more important position in our educational system than at present. More than 25 of the graduating class of 1884 have been employed as teachers for the ensuing year before graduation, and few, if any, will fail of employment during the year.

While the State has been very liberal in cherishing and providing for the Normal, and it has become one of the institutions of which we are justly proud, there are still some needs which should be speedily supplied:

First, More liberal appropriations should be made for the annual increase of the library. It is being more and more used by the students, and should be more fully supplied with professional, historical, poetical, and literary works and books of reference.

Second, The heating does not appear to be economical, and a present outlay of even a considerable amount would soon be covered back by decreased expense.

Third, Additional study halls are very much needed. At present several rooms serve the joint purpose of recitation and study rooms, necessarily resulting in some delay and confusion. An addition in the rear of the Training School could be erected at moderate expense, without injury to the appearance of the buildings, and would greatly increase the usefulness of the school.

We trust the Board of Education will lay their needs before the next Legislature, and we are confident favorable action will be secured.

Respectfully submitted,

WITTER J. BAXTER,
HENRY FRALICK,
CLARENCE EDDY,
Visitors.

C.

FINANCIAL EXHIBIT FOR 1883-84.

STATE BOARD OF EDUCATION IN ACCOUNT WITH EDGAR REXFORD, TREASURER.

Salaries.

Edwin Willits	10	months	$3,500 00
Austin George	10	"	2,000 00
Daniel Putnam	10	"	2,000 00
F. H. Pease	10	"	2,000 00
C. F. R. Bellows	10	"	2,000 00
Lewis McLouth	10	"	2,000 00
A. Lodeman	10	"	2,000 00
J. P. Vroman	10	"	2,000 00
Theodore Nelson	1	"	200 00
Julia King	10	"	1,260 00
Helen M. Post	10	"	700 00
Fanny E. Goffe	10	"	700 00
Lucy A. Osband	10	"	700 00
Ann J. Bignell	10	"	700 00
Ency J. Coleman	10	"	700 00
Lois A. McMahon	4	"	280 00
William H. Brooks	10	"	430 00
George F. Key	9	"	460 00
Henry T. Coe	1	"	40 00
Rose V. Barton	10	"	360 00
Florence Goodison	10	"	310 00
Florence B. Kiune	1	"	40 00
Amelia Hale	16	weeks	48 00
A. C. Brower	7	"	49 00
C. C. Vroman	12	months	1,000 00
			$25,477 00

Current Expense Account.

1883.	No. of Voucher.	To Whom Paid.	Amount.
Oct. 23.	1	Austin George, 60 Loomis's progressive music lessons, and "objects" for primary reading class, etc.	$14 32
	2	Frank Smith, chemicals, stationery, school supplies, etc., etc.	29 58
	3	C. R. Pattison, printing circulars, programmes, etc., etc.	40 75
	4	Thorndike Nourse, 24 class registers	8 00
	5	Adams & Westlake, 7 water coolers, drains, and stands	62 65
	6	Lucy A. Osband, collection of minerals, etc.	5 35
Oct. 31.	7	Pay-roll (shown in salary account)	2,448 33
Nov. 26.	8	Homer Briggs, freight and cartage	68
	9	Peninsula Paper Co., 59 lbs. paper	5 50
	10	C. R. Pattison, printing catalogues, etc., etc.	189 15

Current Expense Account.—Continued.

1883.	No. of Voucher.	To Whom Paid.	Amount.
Nov. 26.	11	Telephone & Tel. Const. Co.	$24 00
	12	Soule. Photo. Co.	16 07
	13	Fanny E. Goffe, filling out diplomas	25 00
	14	Currier & McChesney, 1 piano	260 00
	15	Pennsylvania Coal Co., 26$\frac{1000}{2000}$ tons coal	148 12
	16	Edward Wilson, hauling coal	11 35
	17	Seward Albright, freight and cartage	6 01
	18	Homer Briggs, freight and cartage	6 19
	19	E. K. Wood, lumber	11 51
	20	Alonzo Bennett, hauling dirt, etc	23 00
	21	Clarence Eddy, expenses as member of visiting committee	12 95
	22	Lewis McLouth, expenses to Detroit	6 65
	23	Edwin Willits, paid for labor on grounds and buildings	28 30
	24	Geo. W. Hough, magazines and papers for library	103 60
	25	Julia A. King (shown in salary account)	60 00
	26	Julia A. King, paid for photographs, etc., etc	8 68
	27	C. F. R. Bellows, teacher's desk	27 50
	28	Lucy A. Osband, paid for articles for museum	2 68
	29	A. H. Andrews & Co., 2 teachers' desks	55 00
	30	T. B. Rayl & Co., set tools, etc., etc	53 90
	31	C. R. Pattison, binding outlines of music	1 85
Nov. 30.	32	Pay roll (shown in salary account)	2,448 33
Dec. 29.	33	Ypsilanti Broom Co., 3 doz. brooms	9 75
	34	Austin George, books and apparatus for training school	77 20
	35	Homer Briggs, freight and cartage	5 22
	36	W. J. Baxter, insurance	427 50
	37	Richmond, Backus & Co., blank book	14 00
	38	A. Harvey & Son, grate for furnace	15 00
	39	John Cameron, gas fixtures	156 36
	40	A. Lodeman, expenses to Detroit	1 95
	41	J. H. Sampson, hardware	1 48
	42	American Express, express charges	95
	43	C. King & Son, Portland cement, etc	8 96
	44	Frank Smith, chemicals, stationery, etc., etc	18 55
	45	C. W. Rogers, picture frames, etc	40 00
	46	Ypsilanti postoffice, stamps	29 50
	47	Wallace & Clarke, 3 revolving chairs	15 00
	48	W. C. Stevens, hardware	20 65
	49	E. Samson, drawing models	9 04
	50	A. H. Pierson, 2½ days building walk	5 00
	51	W. G. Martin, 6 pair brackets for library	6 75
	52	Clarence Eddy, expenses as member of visiting committee	14 00
	53	Ypsilanti Gas Light Co., 55,000 ft. gas	165 00
	54	Ypsilanti Gas Light Co., 22,600 ft. gas	67 80
	55	W. W. Worden, painting	33 03
	56	Alexander Bailey, labor on building and grounds	12 00
	57	Peninsular Gas Light Co., 1 reflector	51 80
	58	Eberbach & Son, chemicals	7 32
	59	Eberbach & Son, chemicals	11 25
	60	Eberbach & Son, chemicals	13 70
	61	Eberbach & Son, chemicals	17 37
Dec. 31.	62	Pay Roll, (shown in salary account)	2,448 34
1884.			
Jan. 31.	63	Pay Roll (shown in salary account)	2,448 33
Feb. 29.	64	Pay Roll (shown in salary account)	2,448 33
Mar. 25.	65	Telephone and Telegraph Const. Co.	24 00
	66	American Express Co., express charges	30
	67	Normal News, advertising	50 00
	68	M. T. Woodruff, advertising	50 00
	69	American Express Co., express charges	30
	70	Edwin Willits, repairs on building and grounds	58 41
	71	Pencil & Haggit, repairing pump and furnace	10 00
	72	John Terus, 200 lbs. ice	40
	73	Edwin Willits, paid labor, etc., etc	24 98

Current Expense Account.—Continued.

1884.	No. of Voucher.	To Whom Paid.	Amount.
Mar. 25.	74	A. Lodeman, paid for books and expenses to Detroit	$4 15
	75	Austin George, expenses to Normalville, Ill	19 35
	76	Clarence Eddy, expenses as member of visiting committee	18 30
	77	University of Michigan, sash for museum	100 00
	78	American Express Co., express charges	4 00
	79	Post & Tribune, advertising	20 00
	80	Walbridge and Palmiter, 12 copies of the Moderator	24 00
	81	R. N. Reynolds, 1 compound microscope, etc	36 12
	82	Follmore & Scoville, lumber	9 12
	83	W. W. Worden, painting and graining	83 59
	84	C. W. Rogers, envelopes	2 25
	85	Ypsilanti postoffice, stamps	16 50
	86	Moses Lespronse, painting, work, and material	10 65
	87	Frank Smith, Post & Tribune and Free Press	5 40
	88	Frank Smith, chemicals, stationery, etc., etc	24 29
	89	McElcheran & McAndrew, repairing pianos, etc	5 00
	90	McElcheran & McAndrew, 3 stools	3 00
	91	C. R. Pattison, printing reports, etc	16 00
	92	Ypsilanti Paper Co., repairing steam heating pipes	4 25
	93	Peninsular Paper Co., 119 lbs. paper	11 90
Mar. 31.	94	Pay Roll (shown in salary account)	2,448 34
Apr. 30.	95	Pay Roll (shown in salary account)	2,518 33
May 8.	96	American Express Co., one 15-inch level and tripod and express charges	91 40
	97	Edward Wilson, rolling grounds	5 25
	98	T. B. Rayl & Co., 1 Barnes saw and 1 forge, etc	39 83
	99	M. T. Woodruff, printing cards, etc	10 75
	100	Eberbach & Son, chemicals, etc., etc	8 99
	101	Eberbach & Son, chemicals, etc., etc	15 37
	102	Eberbach & Son, chemicals, etc., etc	28 05
	103	E. H. Reynolds, trees and shrubs	30 10
	104	James Hobson, museum supplies	10 71
	105	Edwin Willits, paid for labor, etc	24 35
	106	Homer Briggs, hauling sash from Ann Arbor	7 00
	107	Parsons Brothers, lumber and sawing same	26 57
	108	Austin George, paid for Chicago Daily	3 60
	109	John Gilbert, 62 Norway Spruces	31 00
	110	Lucy A. Osband, articles for museum	4 80
	111	A. Lodeman, postage, express charges, etc	2 35
	112	Walter Hewitt, tuning 2 pianos	10 00
May 31.	113	Pay roll (shown in salary account)	2,518 33
June 12.	114	American Express Co., express charges	25
	115	E. Samson, envelopes, and rubber bands	83
	116	Telephone & Tel. Const. Co	24 00
	117	Amelia Hale (shown in salary account)	33 00
	118	Austin George, 1 doz. sentence builders	2 40
	119	Homer Briggs, freight and cartage	22 28
	120	Wm. Mallion, work on museum cases	5 00
	121	C. C. Carr, cartage	60
June 25.	122	American Express Co., express charges	2 95
	123	Amelia Hale (shown in salary account)	15 00
	124	Geo. F. Key, advertising	5 00
	125	Geo. F. Key (shown in salary account)	100 00
	126	Fanny E. Goffe, filling out diplomas	25 75
	127	Austin George, expenses in visiting New York Normal School	79 38
	128	Ward & Howell, plaster casts	270 85
	129	Lucy A. Osband, materials for museum, etc., etc	3 12
	130	Chas. A. Stelinger, tools	4 00
	131	T. B. Rayl & Co., 1 lathe	90 00
	132	Calvert Lith. & Eng. Co., 150 diplomas	112 50
	133	W. C. Stevens, hardware	14 13
June 30.	134	Pay roll (shown in salary account)	2,518 34
June 25.	135	A. C. Brower (shown in salary account)	49 00
Aug. 12.	136	C. R. Pattison, printing catalogues	165 00

Current Expense Account—Continued.

1884.	No. of Voucher.	To Whom Paid.	Amount.
Aug. 12.	137	Edwin Willits, paid for sundries	$108 63
Sept. 17.	138	Henry Fralick, expenses as member of visiting committee	42 20
	139	W. J. Baxter, insurance	547 50
Sept. 17.	140	Ladies of St. Luke's church, commencement dinner	175 00
	141	E. H. Green & Co., printing programmes	13 50
	142	Telephone & Tel. Const. Co.	24 00
	143	D. B. Green, insurance	157 50
	144	M. T. Woodruff, printing programmes	24 50
	145	James Smith, 5¾ days' work	11 50
	146	Egbert Bow, 5¼ days' work	7 87
	147	American Express Co., express charges	2 00
	148	E. E. Lyon, re-slating black-boards	24 18
	149	W. J. Baxter, expenses as member of visiting committee	28 25
	150	Lewis McLouth, express and freight charges	11 09
	151	H. W. Brown, work and materials for record case	23 02
	152	Ypsilanti Gas Light Co., 118,400 feet gas	355 20
	153	Wm. Bowles, 7½ days' work	9 18
	154	Pennsylvania Coal Co., 362 1888/2000 tons egg coal	1,974 58
	155	Edward Wilson, hauling coal	147 92
	156	Edwin Willits, paid for carpet	38 20
	157	Edwin Willits, paid for sundries	49 92
	158	Edward Wilson, hauling ashes	1 50
	159	Calvert Eng. and Lith. Co., engraving	34 75
	160	L. H Thomas, 10 gallons ink	7 50
	161	C. R. Pattison, printing programmes	34 30
	162	W. H. Sweet, ribbons for diplomas	12 61
	163	Frank Smith, stationery, etc., etc.	20 48
	164	F. L. Stewart, postage stamps	35 04
	165	W. C. Stevens, hardware	24 27
	166	D. W. Parker & Son, lumber	9 00
	167	Parsons Bros., lumber	11 53
	168	Pay roll (shown in salary account)	2,975 00
Disbursements on acct. of current expenses for year ending Sept. 30, 1884			$33,703 61

DEBIT.

1883. Sept. 30.	Balance from old account	586 09
1884. Mar. 31.	Transferred to library fund	1,500 00
Sept. 30.	Current expenses as per above statement	33,703 61
		$35,789 70

CREDIT.

1883. Oct. 3.	By cash from State Treasurer	$9,065 37
Dec. 31.	By cash from sale of old fence	11 20
	By cash from tuition	1,347 50
1884. Jan. 9.	By cash from State Treasurer	9,000 00
April 2.	By cash from State Treasurer	8,000 00
June 30.	By cash from tuition	1,230 00
	By cash from diploma fees	267 00
	By cash from laboratory fees	62 00
July 7.	By cash from State Treasurer	6,500 00
Sept. 30.	Balance to new account	306 63
		$35,789 70

Special Funds Account.

STATE BOARD OF EDUCATION IN ACCOUNT WITH EDGAR REXFORD, TREASURER.

1883.	No. of Voucher.	To Whom Paid.	Amount.
Oct. 23.	1	W. C. Stevens, on account of repairing building	75 89
Nov. 26.	2	F. W. Marvin, on account of repairing building	44 23
Dec. 29.	3	Parsons Bros., on account of repairing building	88 79
Oct. 23.	4	Wm. G. Ross, on account of building out-houses	450 00
Nov. 26.	5	Dean, Godfrey & Co., on account of painting building	15 00
Oct. 23.	6	John MacFarlane, on account of library	124 12
Nov. 26.	7	D. J. Fisher, on account of library	7 00
	8	Edwin Willits, on account of library	75 00
	9	Normal News, on account of library	16 20
	10	A. Lodeman, on account of library	6 15
	11	H. E. Davidson, on account of library	9 00
Dec, 29.	12	John MacFarlane, on account of library	45 81
	13	John MacFarlane, on account of library	90 75
	14	John MacFarlane, on account of library	243 17
	15	D J. Fisher, on account of library	3 75
	16	John L. Atwater, on account of library	36 00
1884.			
Mar. 25.	17	A. Harvey & Son, on account of repairing building	196 34
	18	Wm. G. Ross, on account of repairing building	325 06
	19	W. W. Worden, on account of repairing building	34 60
	20	Julius Hess & Co., on account of architect's fees	113 80
	21	A. Lodeman, on account of library	22 50
	22	John Schlude, on account of library	16 65
	23	Thorndike Nourse, on account of library	26 65
May 8.	24	Scribner & Welford, on account of library	54 26
	25	R. C. W. Dillaway, on account of library	137 83
	26	John MacFarlane, on account of library	284 01
June 25.	27	John MacFarlane, on account of library	157 51
	28	John MacFarlane, on account of library	16 55
Aug. 12.	29	Edwin Willits, on account of library	23 40
Sept. 17.	30	Scribner & Welford, on account of library	47 57
	31	F. W. Christern, on account of library	36 82
Disbursements on account of Special Funds for year ending Sept. 30, 1884			$2,824 41

DEBIT.

1884.		
Sept. 30.	Disbursements as per above statement	$2,824 41
	Balance to new account	676 25
		$3,500 66

CREDIT.

1883.		
Sept. 30.	Balance from old account	$2,000 66
1884.		
Mar. 31.	Transferred from Current Expense to Library Fund	$1,500 00
		$3,500 66

EDGAR REXFORD,
Treasurer.

Ypsilanti, September 30, 1884.

D.

INVENTORY.

A summary of inventory of property belonging to the Michigan State Normal School, September 30, 1884:

Five and $\frac{555}{1000}$ acres of land	$7,400 00
One brick building used for Conservatory of Music	8,000 00
Main Normal School building	104,000 00
Two out-houses	1,800 00
A library of 4,656 volumes	12,500 00
One concert grand piano	740 00
One parlor grand piano	330 00
One square piano	100 00
Two reed organs	200 00
One upright piano	250 00
Models for drawing	135 00
Outline and other maps	200 00
Reading and other charts	105 00
Terrestrial globes	50 00
Collections in natural history and geology	1,300 00
Skeleton and charts	60 00
Centennial map of the United States	50 00
Equatorial telescope	300 00
Transit telescope	320 00
Chronometer	300 00
Celestial globe	35 00
Tellurian globe	45 00
Frictional electrical machine	60 00
Holtz's electrical machine	100 00
Atwood's machine	100 00
Air pump	50 00
Spectroscope	100 00
Induction coil	100 00
Calcium light lantern and slides	150 00
Microscope	50 00
Sciopticon	40 00
Two foot-lathes and tools	250 00
Galvanometer, thermopile, and reflectors	50 00
One scroll saw	20 00
One portable forge	18 00
Level, etc.	90 00
Hydrometer and thermometer	10 00
Siren, organ pipes, steel cylinders	40 00
Geissler and Crookes' tubes	25 00
Small electro-magnets and instruments	25 00
Batteries, galvanic	25 00
Receivers, weight-lifter, etc., for air pump	25 00
Leyden jars and apparatus for electric machine	25 00
Prisms, mirrors, and lenses	30 00
Models of eye and ear	15 00
Models of mechanical powers, pumps, etc.	15 00
Common balances	25 00
Barometers and thermometers	30 00
Miscellaneous glassware	10 00
Hydrostatic and hydraulic apparatus	20 00
Miscellaneous home-made pieces	100 00
Re-agent bottles	100 00
Chemical balance	75 00
Faraday lined furnace	15 00
Oxyhydrogen blow-pipe	15 00
Chemical glassware	50 00
Chemicals and miscellaneous	50 00
Rubber gas holders	10 00
Hydrogen generator, copper	10 00

Rubber tubing and Bunsen lamps	$20 00
Iron stands and condenser for distilled water	20 00
Oxygen generator, two blast lamps	10 00
School desks and seats, recitation seats, chairs, tables, teachers' desks, book-cases for teachers, office desk, and other furniture	6,000 00
Clocks and electric bells, tables, etc., in laboratory, chandeliers and gas fixtures, carpets, cases for museum and library	18,000 00
Total	$148,004 00

E.

LIBRARY BOOKS.

STATE OF MICHIGAN,
DEPARTMENT OF PUBLIC INSTRUCTION,
Lansing August 15, 1884.

To Township Boards of School Inspectors, and School District Officers:

In accordance with the provisions of law (section 124, General School Laws of 1881), I send you, hereto annexed, a list of books for township and district libraries. This list is furnished by the State Board of Education, a contract having been made by said Board with Messrs. Eaton, Lyon & Allen, of Grand Rapids (the lowest responsible bidders), to supply for two years, at the contract prices named, such books as may be selected from the list by the township and district officers ordering them. These books have been selected with great care, are of the most suitable editions for libraries, are to be furnished in good substantial binding, and the contractors are to pay the charges for packing and delivery to the railway and express companies. The purpose of the law which provides for this list is two-fold: 1, to give to officers in charge of school libraries the benefit of a general contract, under which they may purchase books at reduced rates and in a convenient way; and 2, to secure such officers from the danger of purchasing books not suitable for school libraries, by providing them with a carefully prepared list from which to make selection. Should the library fund under your charge be sufficient to purchase a greater number of volumes than you may desire to select from this list, the contractors will furnish, at equally advantageous discounts, such additional books as you may select. For the purpose of aiding you in making selections of additional books, the contractors will be pleased to furnish on application, free of expense to officers in charge of libraries, catalogues of the leading publishing houses. In ordering books *send directly to the contractors named above.*

Under the revised law providing for libraries (Chapter XI, General School Laws of 1881), a township library *must be maintained* in each organized township as the property of the township, the duty of thus maintaining a library being *obligatory* on the township, and the board of school inspectors of the township being charged with the care of the library. Any school district having a school census of not less than one hundred children may, by a two-thirds vote at any annual meeting, establish a district library. Districts having less than one hundred children are no longer authorized to establish or to maintain libraries. Such districts that have had libraries under the old law

are now authorized to donate or to sell their books to the township board of school inspectors, the same to form a part of the township library. Officers charged with the care of libraries are required to report to the Superintendent of Public Instruction the condition of libraries and the use of library moneys, and if in any instance the reports are not properly made, or it appears that the funds have been unlawfully applied, the offending township or district forfeits its share in the next apportionment of the library fund, the same to be divided among such townships and districts as have complied with the law. In townships, however, where the *township boards* (not boards of school inspectors) shall determine and report to the Superintendent of Public Instruction that the public will be better served by using said money for general school purposes, no such forfeiture shall occur. While it is true that the township board may divert the library moneys to general school purposes for any year by so determining, and reporting to this office that such action has been taken, the obligation on the part of the township to establish and to maintain a library is none the less imperative, and such an application of the funds in any year does not relieve the township from its duty in this direction.

The maintenance of school libraries is a duty imposed not only by legislative enactment, but by the organic law of the State (Sec. 12, Art. XIII, of the Constitution), and officers in disregarding this duty, thereby violating the laws, have no excuse. Good books are great blessings, and are among the cheapest and most efficient educational agencies known; consequently, school libraries are justly esteemed as needful and valuable auxiliaries to our public school system. Recognizing these facts, the framers of our Constitution deemed it a subject of great importance to secure the permanent establishment of these libraries, beyond the reach of dissolution and destruction, and it has been the aim of our legislators to make them means of usefulness to our citizens and our children. In the face of all this, it is a deplorable fact that in many of our townships, owing to the culpable neglect of school officers and in direct violation of law, no care has been taken in the matter, and as a consequence not even a vestige of a library can now be found. If proper attention has not been given to this subject in your township or district, I earnestly hope that you will not delay in securing a strict compliance with the law. It is sometimes urged as a reason for neglect in this matter, that public sentiment in the community is not sufficiently enlightened to appreciate properly the benefits to be derived from a school library. This is no excuse. As a school officer you have undertaken to perform the duties required of you by law, and in the performance of these duties *you are obligated to execute faithfully* the law.

Trusting that you may find the annexed list of service, I am

Very respectfully,

HERSCHEL R. GASS,

Superintendent of Public Instruction.

LIST OF BOOKS FOR TOWNSHIP AND DISTRICT LIBRARIES.

BOOKS.	No. Vols.	Catalogue Price.	Contract Price.
HISTORY AND BIOGRAPHY.			
Hildreth's History of the United States	6	$12 00	$7 85
Higginson's Young Folks' United States	1	1 50	1 05
McMaster's History of the United States	5	12 50	8 35
Coffin's Boys of '76	1	3 00	1 95
Coffin's Story of Liberty	1	3 00	1 95
Old Times in the Colonies	1	3 00	1 95
Lodge's English Colonies in America	1	3 00	1 90
Champlin's Young Folks' History of the War for the Union	1	2 75	1 75
Boys of '61	1	2 50	1 50
Campaign Series of the War	13	12 50	8 70
Parkman's Conspiracy of Pontiac	2	5 00	3 35
Parkman's Jesuits in North America	1	2 50	1 68
Parkman's LaSalle and the Great West	1	2 50	1 68
Campbell's History of Michigan	1	3 50	1 80
Freeman's Old English History	1	2 00	1 15
Macaulay's History of England	5	3 75	1 80
Green's Shorter History of the English People	1	1 75	1 03
Gardiner's English History for Young Folks	1	1 00	83
Dickens's Child's History of England	1	1 25	50
Student's History of Greece	1	1 25	1 02
Student's Merivale's Rome	1	1 25	1 02
Student's History of France	1	1 25	1 02
Student's History of Germany	1	1 50	1 23
Motley's Dutch Republic	3	6 00	3 93
Motley's Netherlands	4	8 00	5 20
Young Folks' History of the Netherlands	1	3 00	2 25
Young Folks' History of Russia	1	1 50	90
Young's Remarkable Events in the World's History	1	1 25	55
McCarthy's History of Our Own Times	2	2 50	1 23
Creasy's Fifteen Decisive Battles	1	1 50	97
MacKenzie's History of the Nineteenth Century	1	1 50	75
Wallace's Russia	1	4 00	2 50
Strickland's Stories from History	1	1 25	45
Strickland's Stories from Ancient History	1	1 25	45
Strickland's Stories from Modern History	1	1 25	45
Strickland's Stories from English History	1	1 25	45
Yonge's History of Greece	1	1 50	80
Yonge's History of Rome	1	1 50	80
Yonge's History of France	1	1 50	80
Yonge's History of Germany	1	1 50	80
Yonge's History of England	1	1 50	80
Towle's Adventures and Conquests of Magellan	1	1 25	80
Harrison's Young Folks' History of Spain	1	$1 50	$0 91
Harrison's Young Folks' History of India	1	1 50	91
Harrison's Young Folks' History of Switzerland	1	1 50	91
Abbott's Romance of Spanish History	1	2 00	1 30
Bryce's Holy Roman Empire	1	2 00	1 26
The Boys' Froissart (Lanier)	1	3 00	1 33
Prescott's Conquest of Peru	2	3 00	1 95
Prescott's Conquest of Mexico	3	4 50	2 92
Prescott's Charles V.	3	4 50	2 92
Holland and its People	1	2 00	1 30
The Epoch Series:			
The Crusades	1	1 00	65
Houses of Lancaster and York	1	1 00	65
The Age of Elizabeth	1	1 00	65
The Age of Ann	1	1 00	65
The French Revolution	1	1 00	65
Plutarch's Lives (Langhorne)	3	4 50	2 25
Froude's Cæsar	1	75	65
Abbott's Founders of Empires	6	6 00	3 63
Abbott's Early British Kings and Queens	5	5 00	3 03
Abbott's Queens and Heroines	5	5 00	3 03
Abbott's Rulers of Later Times	6	6 00	3 63
Irving's Life of Columbus (Popular Edition)	1	1 75	99
Higginson's Young Folks' Book of American Explorers	1	1 50	99
Towle's Pizzaro	1	1 25	80
Sparks's American Biography	10	12 50	8 10
Irving's Life of Washington (School Edition)	1	2 25	1 20
Bigelow's Life of Franklin	3	4 50	2 92
Wirt's Life of Patrick Henry	1	1 50	75
Leland's Lincoln (New Plutarch Series)	1	1 00	65
Chaplin's Life of Sumner	1	1 25	75
Self-Made Men (Seymour)	1	1 75	1 10
Yonge's Book of Worthies	1	1 25	82
Jameson's Celebrated Female Sovereigns	1	1 25	55
Smiles's Lives of the Stephensons	1	3 00	1 88
Smiles's Life of a Scotch Naturalist	1	1 50	95
Lamartine's Oliver Cromwell	1	60	40
Lockhart's Life of Scott	2	2 50	1 60
Thomas Carlyle (M. D. Conway)	1	1 00	65
English Men of Letters (*Edited by John Morley*):			
Johnson	1	75	49
Gibbon	1	75	49
Scott	1	75	49
Shelley	1	75	49
Hume	1	75	49
Goldsmith	1	75	49
Defoe	1	75	49
Burns	1	75	49
Spencer	1	75	49
Thackeray	1	75	49

LIST OF BOOKS.—CONTINUED.

BOOKS.	No. Vols.	Catalogue Price.	Contract Price.
English Men of Letters.—Continued:			
Burke	1	$0 75	$0 46
Milton	1	75	49
Southey	1	75	49
Chaucer	1	75	49
Bunyan	1	75	49
Cowper	1	75	49
Dickens	1	75	49
Gray	1	75	49
Swift	1	75	49
Sterne	1	75	49
Macaulay	1	75	49
Fielding	1	75	49
Sheridan	1	75	49
Addison	1	75	49
Bacon	1	75	49
Pope	1	75	49
Byron	1	75	49
Locke	1	75	49
Wordsworth	1	75	49
Dryden	1	75	49
Landon	1	75	49
De Quincey	1	75	49
Lamb	1	75	49
Bentley	1	75	49
Kostlin's Martin Luther	1	1 00	75
Ladd's History of War with Mexico	1	1 25	75
Markham's Colonial Days	1	2 50	1 43
Markham's Narrative History of King Philip's War	1	1 25	75
Butterworth's Young Folks' History of Boston	1	1 50	85
The Boys' Plutarch	1	3 00	1 96
American Men of Letters	...	* 1 25	83
American Statesmen	...	* 1 25	83
Underwood's Longfellow	1	1 50	1 03
Johnson's War of 1812	1	1 25	75
Johnson's The Old French War	1	1 25	75
Coffin's Building the Nation	1	3 00	1 96
Browning's Modern France	1	25	17
Trevelyan's Early History of Charles James Fox	1	2 50	1 67
Muller's Political History of Modern Times	1	3 00	1 98
TRAVELS, DISCOVERIES, AND ADVENTURES.			
Our New Way Around the World	1	2 50	1 53
Field's Journey Round the World	2	4 00	2 62
Mrs. Brassey's Around the World in the Yacht Sunbeam	1	1 50	55
Parkman's Oregon Trail	1	2 50	1 68
Richardson's The Yellowstone	1	1 50	92
Nordhoff's California	1	2 50	1 31
Nordhoff's California, Oregon, and Sandwich Islands	1	2 50	1 55
Bayard Taylor's Travels	10	16 50	10 75
Rollo's Tour in Europe	11	10 00	5 00
Dilke's Greater Britain	1	1 00	65
Thackeray's Irish Sketch Book	1	1 25	75
Thackeray's Paris Sketch Book	1	1 25	75
Hay's Castilian Days	1	2 00	1 30
Hilliard's Six Months in Italy	1	2 00	1 25
Zig Zag Journeys in Europe	1	2 25	1 40
Zig-Zig Journeys in the Orient	1	2 25	1 40
Zig-Zag Journeys in Classic Lands	1	2 25	1 40
Warner's In the Levant	1	2 00	1 30
Warner's My Winter on the Nile	1	2 50	1 33
Vincent's Land of the White Elephant	1	3 50	2 30
Vincent's Through and Through the Tropics	1	1 50	97
Curtis's Howadji in Syria	1	$1 50	$0 95
Curtis's Nile Notes of a Howadji	1	1 50	95
Life and Travel in Tartary, Thibit, and China	1	50	30
Burnaby's Ride to Khiva	1	2 00	1 28
The Land of the Midnight Sun	2	7 50	4 90
Kingsley's Christmas in the West Indies	1	2 00	1 30
Livingstone's Travels and Last Journals	1	2 50	1 65
Livingstone's South Africa	1	4 50	2 75
Stanley's Through the Dark Continent	2	10 00	6 15
Benjamin's Atlantic Islands	1	3 00	1 95
What Mr. Darwin Saw, etc.	1	3 00	1 95
Griffis's The Mikado's Empire	1	4 00	2 60
Doolittle's Social Life of the Chinese	2	3 50	2 15
Butterfield's Discovery of the Northwest	1	1 00	66
Hale's Stories of Adventure	1	1 00	60
Dana's Two Years Before the Mast (New Edition)	1	1 50	97
Du Chaillu's Apingi Kingdom	1	1 50	95
Du Chaillu's Lost in the Jungle	1	1 50	95
Du Chaillu's Stories of the Gorilla Country	1	1 50	95
Du Chaillu's Life under the Equator	1	1 50	95
Du Chaillu's Country of the Dwarfs	1	1 50	95
Butler's Wild North Land	1	1 75	1 15
Hayes's New Colorado	1	2 50	1 68
Knox's Boy Travelers in Siam and Java	1	3 00	1 98
SCIENCES, POLITICS, ETC.			
Newcomb's Popular Astronomy (Fourth Edition)	1	2 50	1 68
Proctor's Half-Hours with the Telescope	1	1 25	83
Tyndall's Fragments of Science	1	2 50	1 65
Abbott's Science for the Young	4	6 00	3 71
Faraday's Chemical History of a Candle	1	1 00	61
Faraday's Physical Forces	1	1 00	66
Science Primers:			
Physics—Balfour Stewart	1	50	33
Physical Geography—Geike	1	50	33
Physiology—M. Foster	1	50	33
Astronomy—J. N. Lockyer	1	50	33
Geology—Geike	1	50	33
Political Economy—Jevons	1	50	33
Buckley's Fairy Land of Science	1	1 50	98
Buckley's Life and her Children	1	1 50	98
A World of Wonders	1	2 00	1 31
Naturalist's Voyage Round the World	1	2 00	1 31
Pitman's Alcohol and the State	1	1 50	1 03
Johnson's American Politics	1	1 00	75
Nordhoff's Politics for Young Americans	1	88	62
Sumner's History of Protection in the United States	1	75	51
Taussig's Protection to Young Industries	1	75	51
Schele de Vere's Wonders of the Deep	1	1 25	83
Schele de Vere's Leaves from the Book of Nature	1	1 25	83
Buckley's Winners in Life's Race	1	1 50	97
FICTION.			
Miss Alcott's Little Women	1	1 50	97
Miss Alcott's Little Men	1	1 50	97

* Price per volume.

LIST OF BOOKS.—CONTINUED.

BOOKS.	No. Vols.	Catalogue Price.	Contract Price.
FICTION.			
Miss Alcott's An Old Fashioned Girl	1	$1 50	$0 97
Aldrich's Prudence Palfrey	1	1 50	97
Aldrich's Stillwater Tragedy	1	1 50	97
Mrs. Alexander's Which Shall It Be?	1	1 00	65
Auerbach's On the Heights	2	2 00	1 32
Bjornsen's Happy Boy	1	1 00	65
Wm. Black's Daughter of Heth	1	1 25	82
Wm. Black's Princess of Thule	1	1 25	82
Bronte's Jane Eyre	1	1 25	58
Bronte's Shirley	1	1 25	58
Bronte's Villette	1	1 25	58
Bronte's Professor	1	1 25	58
Bulwer's Kenelm Chillingly	1	1 25	71
Bulwer's The Last of the Barons	1	1 25	71
Bulwer's Last Days of Pompeii	1	1 25	48
Mrs. Burnett's Fair Barbarian	1	1 00	65
Mrs. Burnett's That Lass o' Lowrie's	1	1 50	98
Cable's Old Creole Days	1	1 25	84
Mrs. Charles's Schonberg Cotta Family	1	1 00	58
Mrs. Charles's Kitty Trevelyan	1	1 00	58
Cooper's Leather Stocking Tales	1	2 00	1 25
Dickens's Works, Complete (Universe Edition)	14	10 50	6 00
Dickens's Works, Complete (Carletons' Edition)	15	22 50	8 20
Eber's Uarda	2	1 50	1 00
Eber's Egyptian Princess	2	1 50	1 00
Eber's Emperor	2	1 50	1 00
George Eliot's Adam Bede	1	1 00	52
Goldsmith's Vicar of Wakefield	1	1 25	83
George Eliot's Daniel Deronda	1	1 00	52
George Eliot's Felix Holt	1	1 00	52
George Eliot's Middlemarch	1	1 00	52
George Eliot's Mill on the Floss	1	1 00	52
George Eliot's Romola	1	1 00	52
George Eliot's Scenes of a Clerical Life and Silas Marner	1	1 00	52
George Eliot's Theophrastus Such	1	1 00	52
Hawthorne's Marble Faun	1	2 00	1 31
Hawthorne's House of Seven Gables	1	2 00	1 31
Hawthorne's Mosses from an Old Manse	1	2 00	1 31
Hawthorne's Twice-Told Tales	1	2 00	1 31
Dr. J. G. Holland's Sevenoaks	1	1 25	83
Dr. J. G. Holland's Nicholas Minturn	1	1 25	83
Dr. J. G. Holland's Arthur Bonnicastle	1	1 25	83
Holmes's Elsie Venner	1	2 00	1 31
Holmes's Guardian Angel	1	2 00	1 30
Miss Howard's One Summer	1	1 27	83
Howells's Foregone Conclusion	1	1 50	97
Howells's Chance Acquaintance	1	1 50	97
Howells's Lady of the Aroostook	1	1 50	97
Howells's Undiscovered Country	1	1 50	97
Victor Hugo's Les Miserables	1	1 50	88
Jean Ingelow's Off the Skelligs	1	1 50	93
Kingsley's Hypatia	1	1 00	65
Kingsley's Westward Ho	1	1 00	65
Longfellow's Hyperion	1	1 00	65
MacDonald's Sir Gibbie	1	1 25	85
MacDonald's Robert Falconer	1	1 75	85
MacDonald's David Elginbrod	1	1 75	85
MacDonald's Seaboard Parish	1	1 75	85
MacDonald's Annals of a Quiet Neighborhood	1	1 75	85
Miss Mulock's Woman's Kingdom	1	1 25	70
Miss Mulock's John Halifax, Gentleman	1	1 25	70
Jane Porter's Scottish Chiefs	1	1 00	48
Jane Porter's Thaddeus of Warsaw	1	$1 00	$0 48
E. P. Roe's From Jest to Earnest	1	1 50	92
E. P. Roe's Opening of a Chestnut Burr	1	1 50	92
E. P. Roe's Barriers Burned Away	1	1 50	92
Scott's Ivanhoe	1	1 00	48
Scott's Kenilworth	1	1 00	48
Scott's Old Mortality	1	1 00	48
Scott's Guy Mannering	1	1 00	48
Scott's Antiquary	1	1 00	48
Scott's Rob Roy	1	1 00	48
Saintine's Picciola	1	1 50	64
Thackeray's Vanity Fair	1	1 25	48
Thackeray's Newcomes	1	1 25	65
Thackeray's Virginians	1	1 25	65
Thackeray's Pendennis	1	1 25	55
Tourgee's Fool's Errand	1	1 25	65
Mrs. Whitney's We Girls	1	1 50	98
Mrs. Whitney's Other Girls	1	1 50	98
Mrs. Whitney's Real Folks	1	1 50	98
Mrs. Whitney's Leslie Goldthwaite	1	1 50	98
Mrs. Whitney's Sights and Insights	2	3 00	1 95
Arabian Nights	1	1 00	48
Rasselas (Bayard Series)	1	1 00	33
Robinson Crusoe	1	1 00	48
Tom Brown at Rugby	1	1 00	48
Uncle Tom's Cabin (New Edition)	1	2 00	1 31
Warren's Ten Thousand a Year	1	1 50	80
Mark Twain's Prince and Pauper	1	3 00	1 72
Hughes's Tom Brown at Oxford	1	1 25	49
Mrs. Woolson's Anne	1	1 25	83
James's The American	1	2 00	1 28
Cable's The Grandissimes	1	1 50	82
POETRY AND THE DRAMA.			
Bryant's Poetical Works	1	2 00	1 31
Dryden's Poetical Works (Globe Edition)	1	1 25	70
Goldsmith's Select Poems (Rolfe)	1	70	46
Longfellow's Poetical Works	1	2 00	1 31
Milton's Poetical Works	3	5 00	3 33
Scott's Poetical Works	1	1 25	70
Shakespeare's Select Plays (Rolfe)	39	21 84	18 45
Tennyson's Poetical Works	1	1 50	1 00
Ward's English Poets (Student's Edition)	4	4 00	3 05
Whittier's Poetical Works	1	2 00	1 31
Whittier's Child Life	1	2 25	1 45
Wordsworth's Select Poems (Arnold)	1	1 25	83
MISCELLANEOUS.			
Ancient Classics for English Readers:			
Cicero	1	1 00	65
Horace	1	1 00	65
Virgil	1	1 00	65
Homer	2	2 00	1 30
Plato	1	1 00	65
Xenophon	1	1 00	65
Chambers's Miscellany	10	7 50	4 75
Church's Stories from Virgil	1	2 00	90
Church's Stories from the Greek Tragedians	1	2 00	90
Church's Stories from Homer	1	1 25	90
The Boy's Mabinogion (Lanier)	1	2 00	1 33
The Boy's King Arthur (Lanier)	1	2 00	1 33
Palgrave's Golden Treasury	1	1 25	80
Yonge's Book of Golden Deeds	1	1 25	80
The Fairy Book	1	1 25	70
Alice's Adventures in Wonderland	1	1 50	95
Æsop's Fables	1	1 25	48
Sandford and Merton (Day)	1	1 00	65
Childhood (Little Classics)	1	1 00	65
Grimm's Popular Tales	1	1 25	55
Grimm's Stories for the Household	1	1 25	55

LIST OF BOOKS.—CONTINUED.

BOOKS.	No. Vols.	Catalogue Price.	Contract Price.
MISCELLANEOUS.			
Lamb's Tales from Shakespeare	1	$1 00	$0 50
Mrs. Diaz's William Henry Letters	1	1 50	67
Mrs. Diaz's William Henry and his Friends	1	1 50	67
Home Books:			
Home Grounds	1	60	40
Building a Home	1	60	40
How to Furnish a Home	1	60	40
Home Garden	1	60	40
Home Decoration	1	60	40
Amenities of Home	1	60	40
Smiles's Character	1	1 00	59
Smiles's Thrift	1	1 00	59
Smiles's Self-Help	1	1 00	59
Emerson's Conduct of Life	1	1 50	97
Emerson's Representative Men	1	1 50	97
Emerson's English Traits	1	1 50	97
Bacon's Essays	1	1 00	68
Dowden's Shakespeare, His Mind and Art	1	1 75	1 13
Lamb's Essays of Elia	1	1 75	98
Matthews's Hours with Men and Books	1	1 50	1 05
Macaulay's Miscellanies	5	10 00	6 55
Bunyan's Pilgrim's Progress	1	1 00	48
Hinsdale's Garfield and Education	1	1 50	95
Teft's Speeches of Webster	1	1 25	55
Tyler's American Literature	1	3 00	1 95
Irving's Knickerbocker	1	1 25	65
Irving's Alhambra	1	1 25	65
Irving's Bracebridge Hall	1	1 25	65
Irving's Tales of a Traveler	1	1 25	65
Irving's Wolfort's Roost	1	1 25	65
Irving's Conquest of Grenada	1	1 25	65
Irving's Sketch Book	1	1 25	65
Hawthorne's Wonder Book	1	$1 25	$0 66
Hawthorne's Tanglewood Tales	1	1 25	66
Hawthorne's True Stories	1	1 25	66
Hans Christian Andersen's Stories and Tales	1	1 50	95
Hans Christian Andersen's Wonder Stories	1	1 50	95
Holmes's Poet at the Breakfast Table	1	2 00	1 31
Holmes's Autocrat at the Breakfast Table	1	2 00	1 31
Holmes's Professor at the Breakfast Table	1	2 00	1 31
Lowell's Among My Books	2	4 00	2 62
Lowell's My Study Window	1	2 00	1 31
Mitchell's Dream Life	1	1 75	83
Mitchell's Reveries of a Bachelor	1	1 75	83
Hammerton's Chapters on Animals	1	2 00	1 30
Chambers's Book of Days	2	8 00	5 40
Benjamin's Art in America	1	4 00	2 64
Benjamin's Cotemporary Art	1	3 50	2 35
Radcliff's Schools and Masters of Painting	1	3 00	1 98
Home Pictures of English Poets	1	85	66
Munger's On the Threshold	1	1 00	65
Saintbury's Primer of French Literature	1	25	17
Freytag's Debit and Credit	1	1 50	92
Plato's Best Thought	1	2 50	1 02
Spencer's Education	1	1 25	84
Familiar Letters of John Quincy Adams and Wife	1	2 00	1 32
Erckmann-Chatrain's Conscript of 1813	1	1 25	83
Wallace's Ben Hur	1	1 50	1 00

STATE AGRICULTURAL COLLEGE.

REPORT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR—I have the honor to submit my report of the State Agricultural College for the year 1884, as follows:

The year covered by this report has been characterized by but few changes in the educational work of the College.

The following is the

COURSE OF INSTRUCTION.

FRESHMAN YEAR.

Autumn Term.—Algebra—Thomson and Quinby. Ancient History—Swinton's Outlines. English—Whitney's Essentials.

Spring Term.—Geometry—Olney. Drawing—Morse's Mechanical; Lectures. Agriculture—Lectures.

Summer Term.—Geometry completed. Botany—Gray's Lessons, Wood's Botanist and Florist. Rhetoric—D. J. Hill.

SOPHOMORE YEAR.

Autumn Term.—Algebra completed, Astronomy, half term. Moral Philosophy, half term. Botany*—Laboratory Practice. Agriculture—Lectures.*

Spring Term.—Trigonometry, half term—Olney. Surveying, half term—Murray. Botany—Laboratory work, two hours daily. Rhetoric—A. S. Hill.

Summer Term.—Mechanics—Peck. Elementary Chemistry—Lectures, Roscoe. Agriculture—Lectures.* Landscape Gardening—Lectures.*

JUNIOR YEAR.

Autumn Term.—Mechanics completed, half term. Anatomy, half term—Lectures, Martin. Horticulture—Lectures. Organic Chemistry—Lectures. Blowpipe and Volumetric Analysis—Laboratory Practice.

Spring Term.—Human and Comparative Physiology—Lectures, Martin. Analytical Chemistry—Laboratory work, three hours daily, Kedzie's Hand-book. Horticulture—Lectures (elective instead of the third hour of Chemistry).

Summer Term.—Entomology—Lectures, Packard, Cook's Apiary. English Literature—Lectures, Shaw, Chambers' Cyclopedia. Agricultural Chemistry—Lectures.

SENIOR YEAR.†

Autumn Term.—Psychology—Bascom. Chemical Physics—Atkinson's Ganot. Zoölogy—Lectures. Agricultural Engineering—Lectures. Veterinary—Lectures.

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* These studies alternate throughout the term.
† All studies elective in this year.

Spring Term.—Logic—Jevon's Lessons, Fowler's Inductive Logic. Meteorology—Lectures. Civil Engineering—Lectures, Encyclopedia Britannica. Constitution of the United States, half term—Cooley. Political Economy, half term—Chapin-Wayland. Veterinary—Lectures. Geology, half term—Lectures.

Summer Term.—Quantitative Analysis. Botany and Forestry—Lectures and Laboratory Practice. Agriculture, half term. Veterinary—Lectures. English Literature, half term. Philosophy of history, half term—Guizot. Astronomy, half term.

The text-books mentioned above are those used when the several subjects were last taught, but they are liable to be changed.

A new departure to some extent has been taken with regard to

ADMISSION ON CERTIFICATES OF GRADED SCHOOLS.

The State Board of Agriculture, at a meeting held in March, 1884, adopted the following:

Resolved, That the graduates of graded schools having a regular course of study such as shall be approved by the Faculty, or the Board, or by any committee appointed by the Board, shall be admitted without examination in College preparatory studies on presenting properly certified certificates of graduation.

It was made the duty of the Secretary of the Board to visit schools desirous of availing themselves of this privilege with authority to determine whether they should be admitted to this relation to the College. This step, it is hoped, will be for the convenience of many prospective students, and extend the influence and usefulness of the College.

COMMENCEMENT.

The exercises of commencement season began with a baccalaureate sermon to the graduating class, on Sunday afternoon, August 10th.

The Senior Class Day exercises took place Monday evening, and were highly spoken of by those in attendance. A meeting of the Board of Agriculture prevented, as usual, the attendance of any of its members.

The commencement exercises took place in the college chapel on the morning of Tuesday, August 12. It was estimated that four hundred strangers were excluded from the hall by lack of room. The class motto was, "Not for School, but for Life we Learn." The music was furnished by Speil's orchestra of Detroit. The orations were by speakers elected to represent the class: Miss Alice A. Johnson, and Messrs. Abbot, Baker, Bank, Barry, Hill, Smith, and Sutton. After a short address from Gov. Begole the degree of Bachelor of Science was then conferred on

Joseph R. Abbot, Lansing.
Charles Baker, Bancroft.
Edward C. Bank, Lansing.
Warren D. Barry, Dellwood.
Llewellyn Bonham, Oxford, Ohio.
John I. Breck, Paw Paw.
John J. Bush, Jr., Lansing.
Rolla J. Coryell, Jonesville.
Milton Delano, Oxford.
William Dothany, Farmington.
Clarence P. Gillett, Maple.
Charles L. Grimes, Pinckney.
Fred Herrington, Four Towns.
Orel L. Hershiser, Alvorton, Ohio.
James D. Hill, Montpelier, Ind.
Fred J. Hodges, South Haven.
Alice A. Johnson, Agricultural College.
Willis Leisenring, Dimondale.
Colon C. Lillie, Lamont.
Homer D. Luce, Gilead.
Charles McDiarmid, Bear Lake.
Alverson W. Page, Jr., Broadland, Dak.
Andrew Park, Thornville.
Benjamin C. Porter, Grand Rapids.
Wm. V. Sage, Gobleville.
Clarence E. Smith, Jewett City, Conn.
Wilford C. Stryker, Dayton.
Archie W. Sutton, Morenci.
Michitaro Tsuda, Tokio, Japan.
Emerson E. Vance, Matherton.

The thirty graduates bring the total number of graduates up to 332.

The degree of Master of Science was at the same time conferred on Mr. Clarence M. Weed, of the class of 1883, who has spent the entire year at this college and at Cornell University in the enthusiastic study of entomology.

The number of students in the year September, 1883, to August 31, 1884, has been—

Resident graduates	3
Seniors	31
Juniors	40
Sophomores	40
Freshmen	53
Specials	10
Total	177

The average age of the Seniors was somewhat over 22 years, of the Juniors over 20, of Sophomores and Freshmen over 18, and of Specials nearly 21 years.

IMPROVEMENTS.

Since the last report the Agricultural College has been made a post office by the U. S. government, and the Secretary of the College appointed postmaster. The plan of having a government signal service station at the College has failed through the lack of funds appropriated by Congress to the signal service. Colonel Hazen, chief of the department, will put a station at this College into his next estimates. On the other hand the State Fish Commission has made a station of the College, and will prosecute the work of forming ponds and introducing fish more vigorously another year. Some German carp have already been introduced into the ponds of the Botanic Gardens.

MILITARY DEPARTMENT.

The income from the College Fund arising from the Congressional grant of lands has this year amounted to about $27,000, a sum that seems to warrant the establishment of a Military Department at the College, in accordance with the terms of the Congressional grant.

During 1863 and 1864 military drill once a week was required, and courses of lectures given to all the students on Military Hygiene and on Military Fortifications. But at that time the College had not the means to make the Military Department of much account, and the Department was suspended.

The large increase of revenue from the Congressional grant the present year was followed by an application to the War Department of the United States for the detail of an officer. Accordingly the Adjutant General notified me that the following order has been received:

"WAR DEPARTMENT, WASHINGTON, *October 31, 1884.*

By direction of the President, and in accordance with section 1225 Revised Statutes, Second Lieutenant John A. Lockwood, Seventeenth Infantry, is detailed as Professor of Military Science and Tactics, in the Michigan Agricultural College, Lansing, Michigan, and will report for duty accordingly.

P. H. SHERIDAN,
Lieutenant General and Acting Secretary of War."

Col. Lockwood met the Board November 25, 1884, but no plan of drill or military instruction has yet been made.

The membership of the State Board of Agriculture and also of the College Faculty continue the same as for the year 1883.

Respectfully submitted.

R. G. BAIRD,

Secretary of the State Board of Agriculture.

INSTITUTION FOR THE EDUCATION OF THE DEAF AND DUMB.

REPORT OF THE PRINCIPAL.

HON. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR:—I have the honor to submit this, the report of the Institution for the Education of the Deaf and Dumb, for the year 1884.

There were enrolled during the year 271 pupils, 122 girls and 149 boys, the average attendance for the year being 260. These come from various parts of the State, and represent in all 58 counties.

The school is entirely free to children resident in the State, no charges being made for either tuition or board, and indigent pupils are clothed at the expense of the counties from which they come. No obstacle, therefore, stands in the way of any of these unfortunates in getting an education and fitting themselves for useful lives.

The school as at present organized consists of three departments: The Primary, embracing the first five years or grades; the Grammar, the sixth, seventh, and eighth years; and the Academic department, the ninth and tenth years. For a detailed exhibit of the work done in these various departments, you are referred to the course of study appended to this report. This work has been performed in the Academic and Grammar departments by Mr. Thos. L. Brown, Willis Hubbard, and Frederick C. Newcombe, and in the Primary department by Mrs. F. C. Newcombe, Emma Knight, J. J. Buchanan, Anna Currey, Minnie Tyrrell, Geo. W. Cook, Addie Hendershott, Maggie T. Bennett, Phebe Wright, Emma Zimmerman, and Thomas Monroe. The three teachers in the Academic department have each two half-day classes, alternating with each other, the one class working the half day the other is in school. There are thus 17 classes, or an average of 15⅛ in each class. This number is considered a fair average, and as large, under the usual circumstances, as can be successfully taught. The size of classes, however, is determined to some extent by the requirements of a proper classification, and is often somewhat larger or smaller than the above average. The Articulation department is in charge of Miss Carrie H. Summers, and consists of six classes, formed by selecting from the regular classes those who show any disposition or ability to improve by this kind of instruction. These classes are each trained one hour a day in the use of the vocal organs and in lip-reading. While I am not of the belief that all mutes, or even a considerable portion of them, can be taught to read the lips or speak intelligently, I am yet of the opinion that

there is now, and always will be, a large number of pupils in these schools who, having acquired language to a limited extent before losing their hearing, may be able to retain and improve their speech. There are also some who seem to have a peculiar gift to read lips, which, with the right kind of drill, can be much improved. Then, too, there will always be a demand for this kind of instruction, and no deaf-mute school will be considered as rightfully performing its functions that neglects the work in this department. No means that will aid those seeking knowledge at our hands, to more successfully accomplish their work here, should be left unemployed, and if but a few even are benefited, and there is a demand for it, it is a sufficient reason for maintaining a department of Articulation. In this connection, I wish to speak of another branch of special instruction, which seems to me very desirable to place in the course of study. It is drawing. In most of the larger deaf-mute schools in the country this branch is now taught, and very successfully. The children in these schools have, from necessity, eyes trained to quick, close, careful observation, and many of them, with no instruction whatever, display a remarkable genius for drawing, and a good degree of skill in execution. From what I have observed among deaf-mute pupils, and from what I have seen accomplished in this line of work in other schools, I am led to this conclusion. The work in the Educational department during the past year has been prosecuted with as favorable results, I think, as in former years. The teachers have been earnest, diligent, and faithful in the discharge of their duties, and to their hearty coöperation and willing service is attributed whatever degree of success has been attained. I am pleased to mention the interest and devotion to their work of all my fellow-laborers, and to attest my appreciation of their services in all departments.

The industries taught here are worthy of consideration and care. They are doing a work which, while it may not be a source of great revenue to the State, is, nevertheless, a means of great good to those who enjoy their privileges. It is a work no less important than their intellectual or moral training, and, with these, should be regarded as a coördinate part of their education. Were the pupils deprived of this part of their training at the institution, many of them would be without the means of self-support when thrown upon their own resources. To teach them a trade is to place within their hands the opportunity of gaining an independent living, and of becoming useful members of society. Besides equipping them for some profitable employment, the teaching of a trade trains the children to habits of industry that will be of untold value to them in whatever occupation they may engage, and restains them from the vicious and demoralizing tendencies of idleness, whether constrained or voluntary. The work done in these departments is valuable and important, and I beg your favorable consideration of their maintenance in all their present efficiency, and in a manner commensurate with their importance and future needs.

The work of the cabinet shop has been performed almost wholly within the buildings, making changes and repairs about the premises, and in making furniture needed for institution purposes.

The work of the shoe shop has been principally in manufacturing boots and shoes for supplying the needs of pupils in the institution, although a few cases of boots have been made and sold to dealers. The pupils in the printing office have been employed entirely in publishing the *Mirror*, the institution paper, and doing a little job work required in the offices. The work of the

girls in the sewing department has been utilized in making bedding for the institution, wearing apparel for the girls, and in mending the clothes of both boys and girls. These departments at the present time are fuller than usual, and in the printing office additional facilities will be required, or the number of pupils restricted to the very limited accommodations provided for them.

COURSE OF STUDY.

PRIMARY DEPARTMENT.

FIRST GRADE.—Standing, New Pupils.

STUDIES.

1. LESSONS IN LANGUAGE.—These include the use of Natural Signs, Writing, Dactylology, Pictures, and other Objects and Symbols as will serve to convey to the mind through the eye the more obvious conceptions of persons and things, and the expression of these conceptions in written language as an instrument of thought, and a medium of communication, one with another.
2. WRITING AND DRAWING.—These exercises include the use of the crayon, pencil, and pen.
3. NUMBERS.—The design in these exercises is to develop in the minds of the pupils of the class the idea of units from one to ten, as applicable to objects, and their expression in signs, written words, and figures.

TEXT-BOOKS.—Keep's First Lessons for the Deaf and Dumb, Spencerian Copy-Book, No. 2.

SECOND GRADE.—Standing from 1 to 2 years.

STUDIES.

1. LESSONS IN LANGUAGE.—The names of persons, things, and actions; their more obvious distinctions as to number, person, gender, case, tense, and mode; and their formation into simple sentences, in statement, description, narration, interrogation, and definition.
2. NUMBERS.—Counting, adding, and subtracting in simple numbers, with particular reference to the written language used, as well as the figures, both in conceiving through the eye, and expressing the sense of these operations.
3. WRITING AND DRAWING.
4. MORAL LESSONS.—God; Creation; Man; the Soul; Right and Wrong; Rewards and Punishments.

TEXT-BOOKS.—Latham's Primary Reader; Kirk and Beldfield's Model Arithmetic for Little Folks; Peet's Scripture Lessons, Part 1; Spencerian Copy-Book, No. 3.

THIRD GRADE.—Standing from 2 to 3 years.

STUDIES.

1. LESSONS IN LANGUAGE.—Reading, and the use of writing and the Manual Alphabet in recitations; the cultivation of the memory of words and ideas, and the habit of arranging them in sentences in the order of the English language, instead of the inverted order of signs.
2. ARITHMETIC.—Exercises in the development of simple numbers by the processes of addition and subtraction, and the conception and expression of these operations in written words and figures.
3. SCRIPTURE LESSONS.—Adam and Eve, the Fall, the Promise of Mercy, and the History of the Patriarchs.
4. PENMANSHIP AND DRAWING.

TEXT-BOOKS.—Keep's School Stories; Little Folks' Model Arithmetic (Gaube's Method); Peet's Scripture Lessons, Part II; Spencerian Copy-Book, No. 4.

FOURTH GRADE.—Standing from 2 to 4 years.

STUDIES.

1. LESSONS IN LANGUAGE.—Reading, practical grammar, and composition on familiar subjects.

2. ARITHMETIC.—The terms and symbols and the rules and methods used in solving simple problems in multiplication and division.
3. SCRIPTURE LESSONS.—The Ten Commandments, the Ancient Prophets, and the Coming of Christ.
4. PENMANSHIP AND DRAWING.
TEXT-BOOKS.—Webb's Model First Reader; Robinson's Rudiments of Written Arithmetic, from page 7 to 38; Peet's Scripture Lessons, and Spencerian Copy-Book, No. 5.

FIFTH GRADE.—Standing from 3 to 5 years.

STUDIES.

1. LESSONS IN LANGUAGE.—The rudiments of grammar, including the common classification of words; the inflections of verbs, as to time, number, person, mode, and voice; and of nouns, as to number, gender, person, and case, and the form and force of the parts of speech in their relation to each other, and their positions in connected composition.
2. ARITHMETIC.—Simple multiplication and division, including the meaning of the terms used in the statement, operation, and solution of propositions, and the rules by which the deductions are made.
3. GEOGRAPHY.—The meaning of geographical terms; the use of globes and maps; and the study of the general outlines of the principal divisions of the earth's surface.
4. PENMANSHIP AND DRAWING.
5. SCRIPTURE LESSONS (weekly).
TEXT-BOOKS.—Webb's Model Second Reader; Robinson's Rudiments of Written Arithmetic; Monteith's First Lessons in Geography; and Spencerian Copy-Book, No. 6; Peep of Day.

GRAMMAR DEPARTMENT.

FIRST GRADE.—Standing from 4 to 6 years.

STUDIES.

1. READING.—An exercise for the purpose of forming the habit of apprehending directly the sense of the words and sentences used, according to the genius of our language, and not through the medium nor in the order of natural signs.
2. GRAMMAR AND COMPOSITION.—This study embraces the principles and practice of expressing thought readily and accurately in written language.
3. ARITHMETIC.—Thorough practice in the four Fundamental Rules.
4. GEOGRAPHY.—A general view of the divisions of the earth, and a more particular description of North America and the United States.
5. SCRIPTURE LESSONS (weekly).
TEXT-BOOKS.—Webb's Third Model Reader; Kerl's First Lessons in Grammar; Robinson's Rudiments of Arithmetic, from page 7 to 73 inclusive; Monteith's Introduction to Geography; and International Sunday School Lessons.

SECOND GRADE.—Standing from 5 to 7 years.

STUDIES.

1. LANGUAGE.—The analysis of the different parts of speech; the rules of syntax; the formulæ of parsing; and written exercises in composition on familiar subjects, as practical illustrations of the fundamental principles of our language.
2. ARITHMETIC.—Common, decimal, and compound fractions, and reduction of compound numbers, descending and ascending.
3. GEOGRAPHY.—A particular review of the geography of the United States with the drawing of outline maps; and the study of the prominent features of the other principal kingdoms and countries of the earth.
4. HISTORY.—History of the American people from the discovery of America to the end of Washington's administration.
5. SCRIPTURE LESSONS (weekly).
TEXT-BOOKS.—Kerl's Common School Grammar, Parts II and III; Robinson's Rudiments of Written Arithmetic, from page 39 to 73 inclusive; Monteith's Manual of Geography; Taylor's Brief History of the American People; and International Sunday School Lessons.

THIRD GRADE.—Standing from 6 to 9 years.

STUDIES.

1. ENGLISH GRAMMAR.—The Analysis and Synthesis of sentences, and the proper and improper use of words in composition.
2. HISTORY OF THE AMERICAN PEOPLE.—From the end of Washington's administration to the present time.
3. ARITHMETIC.—Percentage, ratio and proportion, simple and compound.
4. PHYSICAL GEOGRAPHY.—A detailed description of the physical features of the United States.
5. SCRIPTURE LESSONS (weekly).

TEXT-BOOKS.—Kerl's Common School Grammar; Taylor's Brief History of the American People; Robinson's Progressive Practical Arithmetic; and International Sunday School Lessons.

ACADEMIC DEPARTMENT.

FIRST GRADE.—Standing from 6 to 9 years.

STUDIES.

1. Grammar and composition.
2. Arithmetic.
3. Book-keeping.
4. Natural philosophy.
5. Scripture lessons (weekly).

TEXT-BOOKS.—Kerl's English Grammar, and Hart's Lessons on Composition; Robinson's Higher Arithmetic; Mayhew's Book-keeping; Norton's Physics; and International Sunday School Lessons (weekly).

SECOND GRADE.—Standing from 7 to 10 years.

STUDIES.

1. Composition and rhetoric.
2. Arithmetic.
3. Anatomy, physiology, and hygiene.
4. English literature.
5. Scripture lessons (weekly).

TEXT-BOOKS.—Hart's Composition and Rhetoric; Robinson's Higher Arithmetic; Cutter's First Book on Anatomy, Physiology and Hygiene; Straford's Book of English Literature; and International Sunday School Lessons.

With the increased facilities that we now have afforded by the new addition recently completed, many more pupils can be accomodated than formerly, and a special effort will be made soon to get all who are of proper age and otherwise entitled to do so, to enter the school. The only requirements being a sound mind and body in a child between the ages of nine and twenty years, no parent should delay for a moment the sending of a deaf and dumb child to the Institution, who can fulfill these conditions.

Respectfully submitted,

M. T. GASS,
Superintendent.

MICHIGAN SCHOOL FOR THE BLIND.

REPORT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—The following is submitted as the report of the Michigan School for the Blind for the school year ending June, 1884.

No change of importance has been made in the methods employed in the school work in this Institution. Oral instruction is the most approved method of teaching the class of pupils which are collected into this school and continues to be followed here.

In the school work, fifty minutes are devoted to each recitation which is followed by an intermission of ten miuntes. This intermission affords a relaxation from the school work and furnishes opportunity to change the air of the class rooms. Hours for recreation are set apart, at which time out door exercise is made as obligatory as attendance on recitations.

Seventy pupils received instruction in the school department, of which number there were 37 boys and 33 girls. Studies in the following subjects were pursued during the year 1884, viz.:

First Grade.—Usetul Knowledge Exercise, Geometry, Reading and Spelling, Arithmetic, Grammar, Physical Geography, and Memorizing.
Second Grade.—Useful Knowledge Exercise, Arithmetic, Reading and Spelling, History and Memorizing.
Third Grade.—Useful Knowledge Exercise, Arithmetic, Reading and Spelling, Geography, Physiology, and Memorizing.
Fourth Grade.—Objects, Reading and Spelling, Arithmetic, and Memorizing.

Raised print books were added to our pupil libraries of the value of $278.46. These books were furnished us by the American Printing House for the Blind, as our quota from the Congressional Subsidy Fund.

The work in the music department has been attended with good results. The improvement on the part of many pupils has been marked and creditable. Two teachers are employed in this department and eight pianos are daily used in giving instruction and the necessary practice. Every pupil, possessing an aptness for music, has the privilege of pursuing studies in this direction. These lessons are continued only when the first results are sufficiently promising to warrant it. It is needless to say, however, that very many blind pupils display an early taste for musical studies and become teachers and expert musicians.

Those pupils who have taken a complete course of instruction here, have met with good success in finding employment, and have been able to realize a comfortable income from this source. Instruction in this and the work depart-

ment have a practical object in equipping these blind pupils for providing for themselves a means of self support. An investigation several years since, by a committee of instructors of the blind in this country, although hastily and imperfectly made, revealed the fact that over six hundred graduates of schools for the blind are earning a competent support as piano tuners, teachers of the voice and piano, and as organists in churches.

During the past year ten boys and twenty-five girls received vocal lessons and seventeen boys and twenty-four girls received instruction and practice on the piano.

In the handicraft department, the pupils receive the benefit of daily exercise in manual labor. This not only furnishes a relief from the work of the other departments, but is especially designed to cultivate industrious habits and develop the ability to engage in useful occupations which otherwise they would not be able to do. During the past year, the girls have done a variety of machine work. Three sewing machines and a knitting machine are in daily use. Several of the girls make their own clothes on the sewing machines, and they are made self-helpful and useful by being prepared to do this work in their own homes. The hand work comprises a variety of plain and fancy needle-work, knitting, and crochet-work. The girls are also instructed in the art of darning and mending. Work of this character is performed at a time each week set apart for the purpose. The girls also have the daily care of their own rooms and keep them neat and orderly.

The broom trade continues to be the main dependence in the industrial employment of the boys. During the past year two hundred and ninety (290) dozen brooms were sold besides a quantity of whisks and brushes. We do not aim to make a great quantity of brooms so much as to have each boy learn how to do every part of the work and do it well. The quality of the work done by our pupils is equal to the best found in the market. Thirty-five boys were engaged in the several operations of this trade.

The following is the list of officers and teachers for the school year ending June, 1884:

Superintendent—J. F. McElroy.
Matron—Miss L. V. Abbott.
First Literary Teacher—Clarence D. McLouth.
Second Literary Teacher—Miss Annie Fairman.
Third Literary Teacher—Miss Aristine Noyes.
Fourth Literary Teacher—Miss Jennie Dusenbury.
Vocal Music Teacher—Mrs. L. S. Roper.
Instrumental Music Teacher—Miss Jennie Van Wormer.
Teacher of Girls' Work—Miss Anna Selden.
Teacher of Broom Making—M. N. Cross.

Respectfully submitted,

J. F. McELROY,
Superintendent.

MICHIGAN STATE REFORM SCHOOL.

REPORT OF THE BOARD OF CONTROL. *

The accompanying report of the Superintendent gives full information of the management of the institution, and calls attention to several questions important to be considered by our legislators and by all who wish to see the Reform School properly equipped for doing the best possible work for those committed to its care.

The estimated needs of the institution for the two years to come are as follows:

For library and current literature	$360 00
For bedding	960 00
For clothing and shoes	6,240 00
For general salaries	12,500 00
For school salaries	3,600 00
For furniture	450 00
For discharged inmates	1,350 00
For hospital	720 00
For lights	1,700 00
For fuel	3,500 00
For provisions	16,320 00
For farm account	1,600 00
For general expenses	3,000 00
For school expenses	300 00
For postage	200 00
For printing, stationery, etc.	100 00
For repairs and alterations	3,000 00
For painting	600 00
For farming implements	200 00
For wagons, harness, etc., and repairs on same	300 00
	$57,000 00
Less estimated receipts	5,000 00
Total	$52,000 00

For special expenses, building, etc., as follows:

For rebuilding center of main building	$40,000 00
For building a double cottage and furnishing the same	18,000 00
For building bake shop, flour room, etc.	2,000 00
For elevating tower and building water tank	1,500 00
Total	$61,500 00

* The annual report to the Superintendent of Public Instruction, required by section 2, Act No. 206, Laws of 1881, not having been received, the report here given has been compiled in this office from the last biennial report of the Board of Control to the Governor.—SUPT. PUB. INSTRUCTION.

The amount asked for general salaries is to pay as follows:

Superintendent	$2,000 00
Assistant superintendent	1,100 00
Superintendent's clerk and book-keeper	700 00
Assistant matron	300 00
Eight cottage and shop men @ $600.00	4,800 00
Nine women for supervisors in housework, kitchen, laundry, etc., @ $228.00	2,052 00
Engineer	500 00
Night watch	360 00
Teamster	300 00
Assistant engineer (part of year)	200 00
Substitute help	188 00
	$12,500 00

The amount estimated for school salaries will pay

Two men teachers @ $600.00	$1,200 00
Eight women teachers @ $300.00	2,400 00
	$3,600 00

The estimate for farm account is to pay

One farmer	$600 00
One assistant farmer	360 00
One teamster	300 00
Hay, straw, grain, garden seeds, etc.	340 00
	$1,600 00

Of the amount ($75,000.00) appropriated by the Legislature at its special session in 1882 for needed improvements, $55,582.12 has already been expended, and the remaining amount, $19,417.88, will be needed to complete the work contemplated by the act making the appropriation. We have completed and in use two cottages, and a boiler house containing two boilers for heating purposes.

Our steam-heating has been extended to include all the family cottages save one. We have approaching completion a new north wing to the main building, which will give us a capacious and convenient dining-room and much needed accommodations for employés' rooms. During the past season our boys have performed a very large amount of labor in the way of draining two of the swamps which were not only prejudicial to the appearance of our farm, but also dangerous to the health of the institution. This work would have cost over $1,000.00 had we been obliged to hire it done. Our farm has been further greatly improved in appearance and value by being cleared of stumps, with which it was largely covered four years ago, and by the building of a large amount of substantial fence.

We have made an addition to our farm by the purchase of twenty-five acres of valuable land lying adjacent to what we already had, for which we paid $1,500.00. There are still a few acres joining our grounds which it is not only desirable but important we should own, and which we could now purchase at a reasonable figure. We should be pleased to have this subject brought to the attention of the Legislature, feeling sure that it would result in an appropriation sufficient for the purchase.

While we did not think best to recommend an appropriation of any special amount for the introduction of some industrial pursuit into the school, we desire to call your attention to this subject, which we believe of such importance as to merit the careful consideration of our Legislature, hoping that they will give us a small appropriation with which we can make a beginning in this direction. While we would not think it wise to attempt to turn out skilled mechanics, it would certainly be to the advantage of our boys if, when

leaving us, they could have such an acquaintance with tools and their uses as would enable them to enter shops and manufacturing establishments, prepared to undertake successfully work other than that of the most common laborer. In fact, the fitting of our boys for earning a living immediately upon leaving the school, should be considered an important and necessary part of the work of an institution like ours. This we are now doing in a satisfactory manner for perhaps a third of our boys through the medium of our farm, the bake shop, the tailor shop, the shoe shop, and the engine room. We should be pleased if the necessary funds are provided to extend still further our ability to put every boy upon a self-supporting basis before he leaves our care.

The suggestions of the Board of Corrections and Charities on this point are in entire harmony with our own views, and are, we know, in accord with your Excellency's opinion as expressed to us at different times.

Another subject, concerning which your Excellency has manifested a lively interest, even to the extent of asking a special report upon it from the State Board of Health, is the disposition of our sewerage. While we believe that we are doing the best possible under the circumstances, we are well aware that we shall never have a satisfactory and altogether successful system of sewerage till we have a sewer to the Grand river. We would therefore respectfully urge a careful investigation of our needs in this direction, knowing that if it should appear to the Legislature that the best interests of the institution demanded such an improvement, it would require no special request from us to secure the needed appropriation.

We would respectfully call attention to our rapidly increasing number of inmates, and the imperative necessity of making provision for their care when our number shall have reached 500, which is our maximum capacity, even with the added facilities for which we have recommended appropriations. At our present rate of increase, we shall have 500 boys within a few months. We believe that such changes should be made in the law governing this institution as will obviate the necessity of attempting to accommodate a larger number here. While it is not our province to advise as to the manner in which increased numbers shall be provided for, we would express our conviction that under no circumstances is it wise to mass a larger number than 500 in one institution. To do so would, we are sure, be prejudicial to the best interests of those in whose behalf we are working, and hence destructive of those good results to the State at which we aim. Assuming that the Legislature will take the same view of this question as we have, our recommendation for appropriations have been based on the supposition that our number would be limited to 500. A failure to provide for doing this would necessitate both an appropriation for increased accommodations here and an increased appropriation above what we have asked for current expenses.

In closing this report, we desire to say that in our recommendations for appropriations, as well as in our expenditures of previous appropriations, we have had in view solely and constantly the interests of the State, as represented in the important work of the institution placed under our care. No expenditures have been made and none are recommended except such as we believe are dictated by wise economy, and such as any citizen of the State conversant with our work and its needs would heartily approve.

Very respectfully your obedient servants,

GEORGE A. SMITH,
E. H. DAVIS,
JAMES BLAIR.

A.

SUPERINTENDENT'S REPORT.

To the Honorable Board of Control of the Reform School:

GENTLEMEN.—I have the honor to submit my report as superintendent of the Reform School for the biennial period ending Sept. 30, 1884. In so doing, I shall endeavor to bear in mind that such a report is expected to contain those facts concerning the past work of the institution and its prospective needs and purposes, which are of interest and importance to the public whose servants we are, and for whose good the Reform School is maintained.

It is with both pleasure and pride that I review our work for the past two years, not only as I have seen it in the every day routine of work and study and recreation, upon our farm and playgrounds and in the shops and school rooms, but also as I have learned of it from county agents, and the parents and friends of boys who have gone from us. While it is impossible to secure reliable reports from all who have been released from the School, and while we know that some, who have left us, have not done what was right, yet we have abundant evidence that the great majority who have been under our care, have been improved by their connection with the institution and are doing as well as could reasonably be expected. In estimating the value of a school like ours, it is its successes that should be considered and not its failures,—for all know that there are many sent to us who, from inherited tendencies to wrong doing, or from long continued association with the degraded and vicious are well nigh hopeless from the start. Most of this class will eventually find their abiding place in some penal institution. Another class consists of those who are so weak intellectually that no human power can hope to make of them self-supporting citizens. It has been the policy of our institution to return boys belonging to either of these classes to the counties from which they came as "improper subjects," whenever it seemed impossible to benefit them permanently, and especially when their influence was persistently pernicious and prejudicial to the welfare of the School as a whole. It is in regard to those who belong to one of the two classes mentioned that the public most frequently hear through court records and newspaper items. We are happy to say, not boastingly, but in simple justice to the Institution, and for the encouragement of those who are interested in our work, that for every instance brought to our notice where our boys have failed to do well after leaving us, we could name at least five who are honorable and worthy members of society. It is one of the most pleasing and encouraging experiences of our work that we are frequently receiving letters and calls from those who left the Institution years ago, and are now filling positions of honor and trust in the communities where they reside. Could we obtain reliable information concerning all those who have been connected with this institution, I am sure that the good work performed through its instrumentality would be so apparent, as to justify the conclusion, that as a financial investment alone, no portion of the public funds have been more wisely expended than that used in maintaining the Reform School.

The great value to the public of a reformatory institution when wisely conducted is forcibly presented in a paper upon this subject prepared by Eugene Smith, Esq., of New York, and read before the National Prison Association. While the figures presented by him and the arguments advanced pertain to the prisons of New York and to adult criminals, they have so direct a

bearing upon the work of an institution like ours that I have thought it of interest to condense and adapt a few paragraphs from his paper for this report.

"From statistics, based on a broad induction, it has been ascertained that persons who follow crime as a business realize from their spoliations on the community $1,600.00 each per annum. But that does not represent half the loss thus sustained, since it is a well known fact that the receivers or purchasers of stolen goods get the lion's share of the profits."

This is from a report of a committee comprising such men as Ex-Gov. Hoffman, Judges Allen and Folger, Dr. Francis Lieber, and Prof. T. W. Dwight. A similar estimate made in England several years since arrived at a result very nearly identical with that just quoted.

Adopting this estimate as a basis of computation, and it is readily seen that if we can save from lives of crime even half the boys who go out from us each year, we are saving to the State at least three times the cost of the Institution. It is not pretended that these figures, either as to the number of boys saved, or as to the damage caused to the community by each criminal, are precise, (as a matter of fact, we hope and believe that we are saving many more than fifty per cent. of those who pass through our institution), but they are sufficiently accurate to convince any one who will ponder them that reformatory work, as a measure of political economy, has a bearing upon the pecuniary interests of the people hardly secondary in importance to that of any other subject of governmental concern.

But any pecuniary calculation of these results dwindles into sordid insignificance, when the attempt is made to comprehend the real worth and value to the State of an institution which can, and does, reclaim many from vice to noble manhood. Injury done to property is the most trifling part of the curse with which crime scourges society. Estimate the corrupting, disintegrating forces with which crime menaces civilization; measure the personal suffering, the broken-hearted grief, the despair and ruin that crime brings upon households and upon individuals; compute these moral and social elements, and through their appraisement it may be possible to formulate the value of a successfully conducted reformatory institution.

I cannot, perhaps, more satisfactorily present items of interest in reference to our every-day work, our aims, and our needs, than by giving definite answers to a few of the questions which are asked by visitors to the Institution:

How many boys have you in the School?
Four hundred and forty.

How many since the organization of the Institution?
Three thousand one hundred and twenty-nine.

Do you have many colored boys?
About one-tenth of our boys are colored. At present we have 40 colored and two Indians.

Are your numbers increasing?
Very rapidly. We have nearly one hundred more than one year ago.

To what do you attribute this rapid increase?
Largely to the hard times. There are probably more boys out of employment in Michigan to-day than ever before, and, as every one knows, idle boys are the ones who get into mischief. Then, too, when work is scarce it is more

difficult to find homes for boys than when everybody is in need of more help. Despite the most strenuous efforts on our part, we have been able to release only 145 during the year past, while the year previous we, with far less trouble, found homes for 202.

Your Institution must be very much crowded?

O, yes; we can properly accommodate only 400. A part of our buildings have been planned with a view to furnishing accommodations for 500 boys, and our Board of Control will recommend to the Legislature appropriations for such additional buildings as will enable us to care well for that number.

What would be needed for that purpose?

A "double cottage" which would furnish school-room and dormitory accommodations for 100 boys.

Do you expect that 500 will be the maximum number needing to be cared for in such an institution?

By no means. But we do think that not more than 500 should be congregated in one school. Some provision should be made whereby our numbers should never be allowed to exceed that number.

In what way should this be done?

There are various plans by which this might be accomplished. It might be done either by establishing another institution, or by limiting the ages between which boys are committed, or by establishing some more stringent limitations as to the offenses which may be made a basis of commitment to this Institution.

What are the conditions of commitment to the Institution at present?

"Every male person under the age of sixteen years and over the age of ten years, who shall be convicted before any court or magistrate of competent jurisdiction, for any offense punishable by law, by fine or imprisonment, or both, and who, in the opinion of such court or magistrate, would be a fit subject for commitment to the Reform School, except in case of offenses punishable by law with imprisonment for life, may be sentenced by such court or magistrate to the Reform School until he shall reach the age of eighteen years, or until discharged by law." (See Howell's Compilation, Sec. 9817). Under the provisions of Act No. 144 of 1883 entitled "An Act to Provide for the Compulsory Education of Children in Certain Cases," boys between the ages of ten and fourteen may be committed to the Reform School to remain until they shall reach the age of sixteen years, or until discharged by law.

How many have been committed under the provisions of this last mentioned act?

Twenty-three.

Do you not attribute a portion of the increased number of commitments during the past year to the influence of this law?

Not at all. We had the same increase in the year 1881–2 over the previous year before this law was enacted. While a few boys have been committed under the provisions of this act, some of whom might not otherwise have come to this school, I believe that others, and probably a larger number, have been kept in school at home through the same influence, and thereby preserved from idle habits and evil associations, which would eventually have led them into crime and commitment to the Reform School.

Are most of your boys born in Michigan?
About sixty per cent.

How about the nativity of their parents?
Seventy per cent. of our boys' fathers were born in some foreign land.

Do you have many boys from the country?
Very seldom. Most of them are from our larger towns; about one-fourth from the city of Detroit.

Of what offenses have most of these boys been guilty?
Sixty-three per cent. have been convicted of larceny and twenty-one per cent. of vagrancy. Truancy and assault and battery follow next in the list.

What is the average time that boys remain in the institution?
Of those who have been released during the past two years, the average time in the school has been about twenty-two months.

Is not this less than in former years?
At least six months less than the average time during the history of the institution.

Could there not be a still further reduction in this time without detriment to the interests of those whom you release?
Most certainly, if we could have efficient local aid in securing homes for boys and in caring for them after they leave us.

Are not the county agents of the State Board of Corrections and Charities expected to attend to this work?
The law anticipates that, but the pay of these county agents is so small that but few men are found with the necessary combination of rare good sense, ample means, missionary zeal, and abundant leisure, who will take the position. We have a few such, and the statistics of the institution show not only that we have proportionately fewer boys from the counties where we have such assistance, but that the boys from these counties remain with us a shorter average period than those from the State at large. We feel, therefore, warranted in urging the importance of more efficient local assistance in caring for boys who have received from the institution all the benefit it is capable of bestowing. As it now is, many boys are kept in the school long after its work has ceased to be of any special value to them, simply because to release them would be to set them adrift with no one to assist or encourage them, in which case they would almost surely relapse into evil ways and soon again become the wards of the State, either in this or some other institution.

All those who have had opportunity to judge as to the value of the work attempted in Reform Schools, agree that to stay in an institution beyond a limited period, which is seldom over three years, is prejudicial rather than advantageous to the boy. Under the most favorable circumstances, an institution furnishes but limited opportunities for the development and exercise of individuality on the part of its inmates. Whenever, therefore, a boy shows that he is ambitious to do right, and by his perseverance in well doing has proven his ability to do right under favorable circumstances, we think it for his highest good and for the best interest of the State that he be provided with the best home possible, where every laudable ambition can be encouraged, and where his individuality, under proper guidance, can assert itself. As old soldiers, old preachers, and old politicians are usually worthless in any other

department of labor than that in which they have been schooled by long years of service, so old Reform School boys are usually found to be unfitted for usefulness in any other sphere of life.

I am thoroughly convinced that one of our most pressing needs is more efficient local assistance in finding homes for our boys, and in caring for them after being placed in these homes.

Do you ever release boys during good behavior so that they may be recalled to the school if they fail to do well?

This has been done with over half who have gone from the institution during the past two years, and with the most satisfactory results whenever it has been possible for such boys to report regularly to the county agent of the Board of Corrections and Charities or to the Superintendent of the school. For over a year I have visited Detroit regularly once in two months, and with the county agent of Wayne county have met all our Detroit boys who were at home on leave of absence. These meetings have been valuable in affording opportunity for kindly admonition and encouragement to such as were making brave efforts at right-doing under adverse surroundings, and also, in some instances, for learning that a boy was not yet strong enough to do right without the restraining and guiding influence of the institution.

In caring for these boys in Detroit, I have received the cordial support of Hon. Bradford Smith, county agent, also most valuable and intelligent aid from Sergt. E. F. Culver, truant officer, and his efficient assistants, whose services have been kindly afforded through the courtesy of the chief of police of the city.

In several other counties the agents of the Board of Corrections and Charities are doing most excellent service in looking after the boys returned to their care. Without in any way appearing to criticise the work of any of these poorly paid public servants, I desire especially to mention the very valuable work in connection with this institution of the agents in the counties of Bay, Branch, Calhoun, Clinton, Genesee, Hillsdale, Kalamazoo, Kent, Macomb, Muskegon, Ottawa, and Saginaw.

How many hours a day are your boys in school?

Every boy attends school four and a half hours each day and works the same number of hours.

What is your course of study?

It is confined to the common English branches.

What time do the boys have for recreation?

Every Saturday afternoon, a recess of fifteen minutes each half day, and all the time after supper until bed-time.

How do they spend their winter evenings?

In their schoolrooms or the reading-room, reading, playing games, or in conversation.

Do they ever attempt to escape?

Rarely. There have been six attempts during the past year. As a rule, only the new comers, who are not yet over the homesick period, think of it.

What are your Sunday exercises?

Sunday-school in the morning and a preaching service in the afternoon. In pleasant weather, many of the boys are allowed to attend church in the

city. Frequently as many as half our number attend service at the different churches in town unattended by any officer of the school.

What kind of work do the boys perform?

All the work about the institution and on the farm, usually under the supervisory care of some officer. We make and mend our own clothes, caps, and bedding in the tailor shop; make and mend all our shoes, bake our own bread, prepare our food, attend to the sweeping, scrubbing, bed-making, dish-washing, the ordinary work of repairing about the buildings, the work in the engine room and laundry, and a large amount of farming, all with boy labor, having such supervisory help as is necessary for instruction and to ensure good work and proper discipline. In addition to this the smaller boys work at chair-caning.

To what extent do you fit boys for earning a living immediately upon leaving the school?

From our tailor-shop, shoe-shop, bake-shop, and engine-room we send out probably an average of fifty boys a year who are abundantly competent to earn good wages from the start. We take special pains to find good places for these boys, and most of them do well. The same may be said of twenty-five or thirty who annually leave the farm to engage in the same work elsewhere.

Could you not with advantage introduce some other trades or some mechanical industries?

We could most assuredly, and hope that the coming Legislature will give us a small appropriation for that purpose. We feel that this is a very important matter, and are anxious for a chance to see what we can do in the way of fitting a much larger number than ever before for caring well for themselves when they leave us. It is a noticeable fact that nearly all the boys who go from the institution with a trade do well, and that nearly all the boys who make a failure in life come from the ranks of those who were given no special preparation in the way of some industrial pursuit.

Do not some institutions contract the boys' labor, and in that way give their inmates industrial training, and at the same time bring in a revenue to the State?

This is done in a few institutions, but is in my opinion very undesirable. The contractor has no interest in the boys except to make them profitable to himself. The plan constantly interferes with that free and full control of the inmates by the officers of the intitution which I believe essential to the best kind of work for and with the boys. This was tried here a few years ago with the most unsatisfactory results.

How many employés have you?

Thirty-six, or about one for every thirteen boys.

How does this number compare with the number in other institutions?

Other schools like ours average one employé to every eight boys.

Do you not need more help in order to do the best kind of work for your boys?

We should have a few more helpers, and we hope to have in the near future. As it now is many of our officers have more boys under their care and work more hours than in most institutions. This lack is in part made up by the superior ability of those employed. With entire freedom from any

political influence and from any desire to allow our institution to be used as a retreat for needy or incompetent friends, our aim has been to employ only such as were peculiarly fitted for the work, and to employ such without regard to their political, religious, or social affiliations. As a result we have a more intelligent, more enthusiastic and in every way more competent corps of workers than it has been my lot to meet in any other of the many excellent institutions I have visited. The *real success* of a Reform school depends very largely upon the character and capacity of the individuals who compose its working force. It is a pleasure for me to say that in this particular we are most fortunate.

In answering these questions, which are but a few of those asked of us almost every day, I have endeavored to give information concerning those features of our work which we know are of interest to the public.

This institution was established and is maintained for the purpose of caring for boys who are found to be tending toward lives of crime—with the hope that such care may result in returning them to society redeemed from their evil tendencies and prepared to become useful citizens. In my efforts to so administer the affairs of the school as to fulfil this hope, I am constantly encouraged by the most flattering reports of the good conduct of many of our boys who have gone to their homes. Allow me in closing, to express to you, gentlemen of the Board of Control, my warmest appreciation of your earnest and considerate assistance and support in the work you have entrusted to my care.

Very respectfully,

C. A. GOWER,
Superintendent.

STATE INDUSTRIAL HOME FOR GIRLS.*

REPORT OF THE BOARD OF CONTROL.

The name of the institution was changed by the Legislature in 1883, from "The Reform School for Girls," to that which it now bears. Either name is appropriate, as the work has proved truly reformatory, and the girls are in a *home* where they are tenderly cared for and instructed in all that tends to make them useful and virtuous women.

The institution was opened August 1, 1881. The first girl was received August 3. At the close of the fiscal year, September 30, 1882, eighty-five had been received. September 30, 1883, one hundred and forty-three had been received. At this date two hundred and five have been received. Of these, twenty-seven are out on ticket of leave, seven have been discharged, eleven were returned to Court as improper subjects, and two under some technicality of the law; three have died. For these and other particulars we refer to the Report of the Superintendent.

The girls are graded according to their improvement. There are now five grades. Most of the girls in the higher grade, or "Honor Cottage," have earned their way there gradually by good conduct. Some, however, were not placed in lowest grade upon entering, because of their comparative innocence, or because of tender age.

In our last report we asked for an appropriation for another cottage. The Legislature granted it with the proviso that the building should accommodate about sixty girls, instead of thirty-three, as in the other cottages. Accordingly a central building has just been completed and opened September 27. The success attending the first four cottages makes us enter upon the experiment of congregating so large a number of girls in one building with some fear as to the result. Our judgment is not in favor of so large a family of this class of girls. In the smaller cottages the manager is the mother of her family. She knows the individual character and needs of each girl. She knows the story of each one, her bent for good or evil, her aptitude for different sorts of work, and each girl feels that she is of individual interest and care, and not merely one of a crowd; or in other words, "a girl in an institution." Many of our girls have said they never before knew what it was to have a home and a mother's care. Whether this truly home feeling can be maintained in the new and large family, is problematical. We *know* the first four cottages have proved successful, and we trust no future

* NOTE.—The annual report, required by Sec. 2, Act 206, Laws of 1881, to be made to the Superintendent of Public Instruction, not having been received, the following has been taken from the biennial report of the Board of Control to the Legislature.—SUPT. PUB. INSTRUCTION.

Legislature will adopt the short-sighted policy of congregating so many of these girls in one building in order to save expense. It is not true economy. If we wish to train these girls to make homes we must teach them what a true home is, in its privacy, its quiet appointments, and in its love, harmony, and mutual dependence. Our aim is to make them good, domestic women, prudent in speech and in conduct,—cleanly, industrious, and capable, so that they will become good wives, good mothers, and careful housekeepers. For this reason we do not think it is well to treat them as criminals whom the State regards merely as prisoners, to be maintained at the least possible cost, regardless of reformation; but as children who have gone astray, and who may be reclaimed to society by judicious care and home training. Many who doubted the feasibility of reforming these girls are now convinced they were mistaken. We have never claimed that all girls sent here would be saved; but we confidently invite doubters to investigate what has been done during the three years of our existence. The improvement of our girls in manners, conduct, and appearance, the favorable reports from the employers of those out on ticket of leave, and their general good conduct, must silence cavilers. Of the thirty-four girls placed at service only three were returned to the Home, having failed to give satisfaction.

We have begun cautiously to employ the girls in out of door labor, and hope in time to make them useful in this direction. It is, however, always necessary to exercise the most watchful care over our girls whenever they are out of the cottages, and the constant presence of builders and workmen on the grounds since the opening of the institution has added greatly to the difficulty, as well as to the necessity of this supervision.

It may seem at first sight that the cost of clothing the girls ($35 each per annum) is large; but we think upon reflection it will not appear so. Very few come to the institution with any suitable clothing. Most of them require women's clothing. Those who go out to service need suitable provision. The tawdry finery they brought few would wear should we permit them, so changed is their taste in this regard. We consider this modest taste in dress as one of the most encouraging indications of their reform. When the wear of a year is considered, particularly as much of it is subjected to rough usage in their domestic and out of door work, it will be apparent that hats, shoes, shaws, dresses, flannels, undergarments, aprons, collars, combs, brushes, etc., cannot be furnished at less cost. It is doubtful if the most economical parent can supply a daughter comfortably, for a year, for the sum we ask per capita for our girls.

The girls have done all the work of the several households, made all the garments, and done most of the varnishing, oiling, floor and fence painting. The large new building has been cleaned, the floors oiled, the carpets, bed and table linen made; in short, all the fitting up for occupancy was done by the girls. Since the opening of the institution no labor that could profitably be done by the girls has been done by an employé; the officers engaged for their daily instruction being the only help employed in the cottages. The girls are learning dressmaking, and the Superintendent's report shows that it promises to become in time a profitable industry.

We have purchased 52½ acres of land between the original 40 acres and the river, thus giving the institution a valuable piece of farming land and preventing its occupancy for objectionable purposes.

The water supply has been a cause of much anxiety, and some expense.

The attempt to raise a sufficient supply from a pipe well by a windmill, and by conducting rain water from the eaves of all the buildings to two large reservoirs, proved an entire failure for fire protection, and only a partial supply for domestic and laundry purposes. The difficulty is now removed by placing a small steam-engine at the pipe well, which now keeps the 2,500 barrel reservoir full, and furnishes an abundant supply for all purposes.

The steam appliances originally constructed proved to be insufficient, defective, and expensive in the consumption of coal. It was, therefore, necessary to have them re-modelled at an expense of $2,600, with yet a further expenditure of $500 to be made. The alterations and additions are expected to obviate the necessity of one or two new boilers, and to save the cost of from 300 to 500 tons of coal per year.

The capacity of the cottages now on the grounds is for 192 girls. It is probable that 125 to 150 will be committed within the next two and one-half years. The dismissals and the number of those put out on ticket of leave will not be likely to equal the number received during that time, making probably a large number to be provided for. Judging from the numbers in kindred institutions in other states, and the growing confidence in our institution, and its necessity, we must infer that another cottage will be required. If the additional cottage should not be needed, the money will not be used; but considering the fact that if the appropriation is not made now, at least three years must elapse before we can have additional accommodations however great the need may be, it is not safe to omit the appropriation.

We again most respectfully ask that Session Law 138, of 1881, which provides for medical and surgical treatment of dependent children at Coldwater, in the hospital at Ann Arbor, may be so amended as to include The Industrial Home for Girls. This is so obviously just as to need no argument.

Before concluding, we desire to call attention to what seems misapprehension on the part of some of our county officers as to the class of persons for whom this institution is designed, viz.: For those of whom there is hope of reformation. We have no facilities for treating the insane, the feeble-minded, or the epileptic; but numbers of these unfortunates have been sent to us, greatly to the hindrance of the proper work of the institution. Section 14 of the act establishing the school gives the Board of Control discretion in the matter of deciding who are improper subjects, and we, in January, 1882, passed the following resolution, defining the class of girls we consider improper subjects, and to this resolution we desire to call especial attention. Girls of either class named cannot be cared for in the institution, and if sent to it must be returned, causing unnecessary expense, and great annoyance to all concerned..

WHEREAS, By Sec. 14 of Act 133, of Session Laws of 1879, the Board of Control of the Michigan Reform School for Girls are empowered to return any inmate sent to said school who shall be found "incorrigible, or an improper subject for admission," to the Court by whom said girl was committed; and

WHEREAS, No provision is made or can be made to care for certain cases;

Resolved, That this Board will not receive into the school either of the following cases:—

1. Insane or idotic.
2. None afflicted with incurable diseases.
3. Girls who are *enciente*.

And that if any of these cases are admitted before their condition is known, they will be returned whence they came as "improper subjects for admission."

We respectfully ask the following appropriations:

For current expense of five cottages for the years 1885 and 1886	$84,008 00
For tools, implements, repairs, lumber, and hardware	2,900 00
Labor on grounds and farm	1,910 00
Repairs for steam heating	2,600 00
For covering steam pipes and boilers	500 00
Providing additional facilities for water supply	500 00
Deficiency on building and furnishing fifth cottage	3,000 00
For new cottage, heating and plumbing	16,000 00
For furnishing the same	3,000 00
Total	$114,418 00

If a new cottage is granted, provision for its current expenses for the year 1886 must be made.

In compliance with Section 147 of Howell's Annotated Statutes we append our estimates for appropriations for the years 1885 and 1886, as submitted to the Board of Corrections and Charities for their consideration and approval.

At their request we have shown the amount actually expended for like purposes for the year 1883 and the first six months of the year 1884. We wish to call attention to the notes following the communication of that Board, which are deemed necessary in order to make the items referred to a little plainer.

MRS. ARTHURETTA L. FULLER,
MRS. ELIZA S. STEBBINS,
MRS. MARY E. COOLEY,
WILLIAM CORBIN,
THEODORE H. HINCHMAN,
Board of Control.

SUPERINTENDENT'S REPORT.

To the Board of Control of the State Industrial Home for Girls:

LADIES AND GENTLEMEN,—I hereby submit the Report of the work appertaining to my department:—

TABLE.—*Number of Girls Received.*

NUMBER RECEIVED AND TOTAL NO. NOW IN SCHOOL.	No.
Whole number received before Sept. 30, 1882	85
From Sept. 30, 1882, to Sept. 30, 1883	58
From Sept. 30, 1883, to Sept. 30, 1884	62
Whole number received since opening	205
Number returned to court	11
" died	3
" discharged	7
" indentured	27
" belonging Sept. 30, 1884	157

TABLE.—*Manner of Dismissal.*

MANNER.	Past Year.	Previously.	Total.
Indentured or hired	20	14	34
Returned to family	2	.....	2
Death	1	2	3
Transferred to insane asylum	1	.....	1
Returned to court	4	5	9
Discharged on expiration of time	3	.....	3
" before " "	7	.....	7

The system adopted of putting girls out on "Ticket of leave" has inspired much emulation among them. As this privilege is accorded only on evidence of reform, and as a reward for good conduct and industry, they are stimulated to show themselves worthy of trust. Part of their wages is put at interest, to be given them when discharged. The reports of the girls now out show them worthy of reliance.

TABLE.—*Officers and Employés, with Salaries.*

OFFICERS.	Salary.
Miss Margaret Scott, Superintendent	$1,000
Miss E. M. Gilbert, Clerk	400
Miss Rose C. Wilder, M. D., Physician	350
Miss S. Viola Wood, Manager	375
Miss Hortense Seaver, Manager Clark cottage	350
Mrs. Amelia Power, Manager Croswell cottage	350
Mrs. E. J. Waldron, Manager Gillespie cottage	300
Mrs. F. A. Russell, Manager Honor cottage	300
Miss Grace E. Bradley, Teacher	250
Mrs. Ida Alexander, Teacher	250
Miss Theresa J. Wood, Teacher	250
Miss Mattie Bettis, Teacher	250
Miss Julia Page, Teacher	250
Miss Sarah Herrick, Housekeeper	250
Miss Celestine Mossie, Housekeeper	250
Mrs. —— Conselyea, Housekeeper	250
Mrs. F. S. Rush, Housekeeper	250
Miss Myra Burrus, Housekeeper	250
Mrs. Elizabeth Moreland, Housekeeper	250
Mrs. Jane E. Meldrum, Relief Officer	300
Mrs. Cynthia Brennen, Sewing Teacher	250
Miss Fannie Beasley, Laundress	250
Mr. James Moreland, Engineer	900
Mr. John Voorheis, Watchman	480
Mr. James Earl, Man-of-all-work	360
Mr. Samuel Warrick, Gardener	480

TABLE.—*Course of Study.*

First Grade.	Second Grade.	Third Grade.
Cards. Exercises in— Drawing. Writing. Spelling. Numbers.	Appleton's First and Second Readers. Oral work in— Geography. Numbers. Drawing. Writing. Spelling.	Appleton's Third Reader. Harper's Introductory Geography. Primary Arithmetic. Drawing. Writing. Spelling.
Fourth Grade.	**Fifth Grade.**	**Sixth Grade.**
Fourth Reader. Hooker's Book of Nature. Harper's Common School Geography. Household Economy. Olney's Elements of Arithmetic. Writing. Spelling.	Fourth Reader, finished. Olney's Elements of Arithmetic. Swinton's Language Lessons. Harper's C. S. Geography. Writing. Spelling.	Fifth Reader. Olney's Elements of Arithmetic. Swinton's Language Lessons. Harper's C.S. Geography. Writing. Spelling.

Seventh Grade, and Extra Studies.	Number in Each Grade.	
Fifth Reader. Language Work,—Composition. Olney's Elements completed. Physiology. U. S. History. Book-keeping. Writing. Spelling.	Unclassified department	27
	First grade	1
	Second "	25
	Third "	28
	Fourth "	26
	Fifth "	15
	Sixth "	15
	Seventh "	18

The school has been re-graded and a primary department organized, in which the younger girls are taught two hours in the morning, by a pupil assistant.

The girls of Croswell Cottage, the cottage of dishonor, are kept separate from the other girls in their school-work, and form an unclassified department.

I beg leave here, to bear testimony to the efficient aid I have in the ladies associated with me in the institution, and from all the members of the Board. Whatever success attends my work is attributable to their harmonious coöperation and assistance in my plans.

Respectfully submitted,

MARGARET SCOTT,

Superintendent.

STATE PUBLIC SCHOOL FOR DEPENDENT CHILDREN.*

REPORT OF THE BOARD OF CONTROL.

To the Governor, Legislature, and the Superintendent of Public Instruction of the State of Michigan:

The Board of Control of the State Public School, in compliance with law, hereby respectfully submits the biennial report of that institution for the two fiscal years closing respectively Sept. 30, 1883, and Sept. 30, 1884, together with the reports of the Treasurer, Superintendent, State Agent, and Physician for the same period.

For convenient reference by county officials connected with our work, the Michigan laws relating to dependent children are herein reprinted. In the appendix will also be found a few letters from county agents and some from children, both of which throw light upon the operations of the school.

Attention is called to the communication from the State Board of Corrections and Charities, which fully recommends the current expense and special appropriations herein suggested by this Board. This endorsement was made after a full examination here of the condition and operations of the institution. This approval, rendered the second time by this Board, is sincerely appreciated. A wise economy that would not interfere with the highest success of the school, has always been the aim of this Board, and it is a matter of justifiable pride that while appropriations asked for have been increased, none have ever been decreased by the Legislature since the school opened. Appropriations for the objects named have always been based on careful estimates and limited to the actual necessities required to secure the best workings of our system and the highest results.

A Decade of Experience.

A more extended report than usual is made at this time, as this marks an interesting period in our history. The 21st day of May last was ten years from the day when the first child was admitted to this school. For over a decade of years the Michigan system for decreasing pauperism and crime by rescuing, protecting, and educating dependent children and securing to them family homes, has been on trial. In 1871, with her own welfare in view as well as that of the children, this State, with no precedent to follow furnished

*The annual report to the Superintendent of Public Instruction, required by section 2, Act No. 206, Laws of 1881, not having been received, the report here presented has been compiled at this office.—Supt. Pub. Instruction.

by any government, established this home and school. For the first time in history a state undertook to secure the maintenance and education of all dependent children before they were ruined by evil influences.

Heretofore all governments waited until the child had committed crime and then constructed many large and expensive reformatories, and undertook the difficult and doubtful task of reform, when prevention would have been certain and many times more economical. In some states and in many private asylums the innocent and guilty were alike confounded. That is the general rule now outside of this State. Michigan made the first radical separation, the first common-sense classification. Here dependent children only are admitted. The delinquents are sent elsewhere. Crime opens the door here for the child no more than it does at the district school. This is the school of of the poor. Poverty alone gives admission. This institution is the lower step only in our grand school system by which the child with no parents and no home save this, can go on through the district and high school, and by this free education supported by taxation on property, complete an honorable educational course in our University. Ten years experience in this State in this work has shown results that demonstrate the wisdom of the Legislature that "builded better than they knew."

The kind expressions regarding this school at home and from abroad show a cordial appreciation by those most competent to judge. This unique system has attracted marked attention in Europe, so that to-day there is no other American institution which is there so well and favorably known. That venerable philanthropist, Mary Carpenter, wrote just before her death, "You have succeeded in accomplishing what I endeavored to do before the English people and Parliament for over a quarter of a century." The distinguished Drouin D'Lhuys, in 1878, before the French Institute, said in a lengthy address on the State Public School of Michigan, that it has the "Honor of being in advance of ancient Europe in the inauguration of a new era for dependent children." Madam Arenal, the able and distinguished social scientist of Spain, in a recent letter, says: "In my work on pauperism I shall cite the State of Michigan as a model for what it has done for dependent children." In his able and extensive report to the Senate of France, comprising three large quarto volumes, about two thousand pages in all, on the project of a law for the protection of abandoned, neglected, and ill-treated children, Senator Roussel has a very favorable notice of this school, occupying some twenty pages, quoting our laws in full. These favorable expressions are encouraging, and in them we can all have a justifiable state pride. But the fact is more satisfactory that this work meets the approval of our own people, and our State and county officials, who with us are engaged in the execution of the law. Years' experience in child-saving work has confirmed our belief that this is the best system so far devised for its special object, and that whatever failure there may be, is due to the execution of the law and not to the system itself.

The System More Especially Defined.

In the law as first enacted, in all amendments, in all regulations founded on the law, there has been one leading idea to which the Board has always sacredly adhered, and that is, that this is a temporary home only. The report of the joint committee introducing the bill for this school made this feature

especially prominent. Whether it is better to keep children here until educated or not, is not a permissible question under the law. However desirable it may seem to some to retain these children here for years, this view cannot be entertained, as the Legislature has said that a family home is the best place for the child, where he must be placed, kept, and educated. All through the ten years of this school, the letter and spirit of the law making this a temporary educational home, has been complied with, and to-day it is more than ever enforced.

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The Results.

Under this unique system by which a state generously and nobly cares for its own dependents without transferring them to other states or counties to be supported in families, poor-houses, or prisons by others, there has been a success which has been gratifying, not only to those in charge, but to the people. In these ten years' experience there has been developed much strength in the system, and perhaps sometimes weakness by reason of mistakes in administration; but all along there has been a constant effort to improve methods and devise better ways to execute the law so as to obtain still higher and better results. This spirit prevails as much to-day as when the school first opened. There is here no self-satisfaction that would prevent investigation and the adoption of whatever might conduce to a higher perfection of our work. Could we give in detail personal histories of children, there could be interesting and absorbing stories told of great numbers of these little waifs of fortune; showing how they have been drawn out of the depths and rescued to a high and pure womanhood and manhood. But we can only generalize, and for statistics regarding results we refer to the report of the Superintendent.

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Taking Care of Our Own Children.

There is no more commendable feature of our law than that it provides for our State caring for its own dependents. All forms of riddance of dependents are objectionable in every respect. It has been a standing complaint for many years by our general government that European States send here their paupers, and now and then pardon convicts or suspend sentence provided they will emigrate to America. It has also been long complained of that eastern states gather up and send dependent children here in great numbers without asking our consent, leaving them with no written indenture, to remain at the mutual option of the child and the person taking it, many gravitating to the poor-houses and reformatories. In the Legislative report in 1871, recommending the establishment of this school, the committee suggested that it might be well to exclude by law the introduction of dependent children from other states. Michigan proposes to take care of her own children, and if every state did the same there would be no need of their migration; and the decrease of juvenile dependency would be more signally marked. But when one country sends its dependents to another to avoid their support, one state to another, or one county passes paupers and tramps on the railroads to another, there is no general improvement, such a course rather tending to encourage, increase, and perpetuate chronic pauperism. But whatever other states may do, Michigan will care for her own poor, believing it to be her duty to do so.

Influence of the School on Legislation.

Within the past ten years several important acts have been passed by our Legislature which were first considered and endorsed by this Board. These are the acts "For the Protection of Children," "For the Treatment of Dependent Children at the State Hospital," and "For the Uniform Regulation of State Institutions." These are among the most important acts passed by our Legislature. Among the radical provisions of the first named are those excluding dependent children from the poor-houses, prohibiting their presence in liquor saloons, gambling houses, houses of prostitution, etc., under severe penalties to be imposed on the keepers of these houses. The law which provides medical or surgical treatment for the dependent child, furnished a way for its cure, and then reception into this school, saving it from a life of dependence. The last act makes more uniform the operations of state institutions in certain respects, a law that might be still amended in that direction with profit to these institutions and to the State.

The acts relating to children are a natural outgrowth of the experiences of this institution, and the observations of those in charge.

The provisions are all based on that principle universally known and almost universally unheeded, that prevention is better than reformation.

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The Adoption of Children.

While the large majority of the children are indentured only, yet many are adopted, and it is gratifying to know that the number adopted is rapidly increasing. The child adopted in the probate court, by consent of the Superintendent, becomes in a greater degree the child of the person adopting it, as well as his heir-at-law. The adoptions at this date are 95, all of which have been made since June 1, 1883, except 27. During the past year there have been 55 adoptions. When this proceeding is had the guardianship of this Board ceases. This Board will continue to encourage adoptions in all cases where such action seems desirable. The children are seldom taken by this procedure except those who are quite young and are wanted as own children to bring up and educate. Taken by adoption or indenture at this early age, the tie between the adopted father, mother, and child often becomes as strong and enduring as between real parent and child. There are very many touching instances of such cases. The older children are seldom placed by adoption. It is better that the Board should retain its guardianship to protect their interests, which would be more liable to be affected injuriously.

New Cottages Not Requested.

There is room in the institution for all admissible children. The population in this State in 1874, the year this school opened, was 1,334,031. Ten years after that the population, as shown by the census just taken, is 1,855,785, an increase of 521,754. In 1874, previous to receiving any here, there were in the State 468 dependent children between one and sixteen years of age. Of these there were between four and sixteen years 339 healthy children who were admissible to the school by law. From the opening of the school to September 30th of this year, there had been 1,672 received. The capacity of the institution is for 330. The number on the day named, in the school, was 278, showing room for 52 more. And yet the Superinten-

dent has for the past year and over notified all the counties that admissible children would be received. Until this notice was given the admissions were divided pro rata. Towards the reception of all admissible children the school has been tending, until that point was reached some over one year ago. It is very gratifying that the institution can come before the Legislature, as it does, saying that the capacity of the school is sufficient for the present, and probably will be for a good many years to come, and that no appropriations are asked for, for the construction of additional cottages. If the law and regulations of the institution in letter and spirit are faithfully executed—and we believe they will be, keeping this as a temporary educational home—an agency to find good homes—a half-way house for the child on its way to a permanent home where education and home treatment shall be secured, then there need be no increase in the size of this school for many years. When the school is still better known, though the population be largely increased, good homes will be found more readily, and room kept for those who are coming.

From Two to Twelve.

During the past year 216 children have been indentured. We are confident that in placing this number as great care has been exercised as ever in securing good homes. It is an evidence of the possibilities of the system. We are confident that we can now care for more children than those between three and twelve years of age, and take this opportunity to respectfully recommend that the law be amended so that it will authorize the admission of all between two and twelve years. Under the present system all under three in the poor-houses must remain there until they reach that age. It would be better for the child to remove it as soon as it can be received here, where it can be better cared for and sooner provided with a home. There are many enquiries here for children under three years. Their support here would cost no more than in the poor-houses and no addition to buildings or current expense appropriation is asked for in case the law is amended as suggested. We have now one interesting cottage known as the "Baby Cottage," for the youngest boys, from three to five. The admission of others from two to three in this cottage would change very little its management and would add an attractive and valuable feature.

Does not the System Decrease Pauperism?

When the institution opened in 1874 there were in the poor-houses nearly 500 dependent children. Since then the State has increased in its population over half a million. And yet this agency keeps pace with the demands upon it. It is a well-known fact that the increase of crime and pauperism is much more rapid than that of the population. The act of 1881 "For the Protection of Children," excluding them from the poor-houses, has a tendency to increase the number here. With an increase of nearly fifty per cent., did not this school tend to decrease the number, would it not be fair to assume that this institution would have had to be largely increased to receive them? The capacity here for some six years has been for 300. It is now for 330, and yet the number this last summer, the number in the school, was as low as 208, with 65 on trial, making the total belonging to the school 273.

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Feeble-Minded Children.

Many times during the history of this school it has been the unpleasant duty of the Board to return to their counties as improper inmates of the school, feeble-minded children. By law they are not admissible. But when the county physician examines the child as to its soundness of mind, having never seen it before, and knowing little of its history, he is not always able to decide correctly. A child between three and twelve may, on examination, appear dull and afterwards develop, showing a sound and bright mind; and whether it is dull or feeble-minded may take long to determine. For years after the reception of doubtful cases there is every effort possible made to develop the dull or feeble-minded child, and the case is not treated as hopeless until it is clearly determined by medical authority that the child belongs to the idiotic class. Then they are reluctantly returned to make room for children of sound mind whom we can help to family homes. The feeble-minded would, if retained, be permanent dependents on our hands, and in time this would cease to be a school and would become an asylum for life residence. There is no hope for development of the minds of this class in the county poor-house. These children, if ever helped, must be by educators experienced in their treatment. The feeble-minded child is out of place here as much as it is in the district school. They are out of place in the poor-house. So are the adult feeble-minded. It is not for us to recommend. But experience here impresses us to discharge a duty in calling legislative attention to the feeble-minded children of the State, hoping something will be done for them consistent with our Christian civilization.

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APPROPRIATIONS RECOMMENDED FOR 1885 AND 1886.

Current expense per annum	$39,000 00
Ordinary repairs, including repainting	$2,500 00
Repairs on steam and water works, and extension of water mains to hospital and hydrant	500 00
New roofing and repairs on roof	500 00
Cement sidewalks	500 00
Underdraining, sewerage, and water closets in cottages Nos. 4, 5, 6, 7, and 8.	1,000 00
Improvments in children's cemetery, including headstones	200 00
Fencing and trees	400 00
Addition to cow barn	500 00
Large pump for elevating water and for fire purposes	800 00
Library	200 00
Furniture and bedding	1,000 00
Fire-proof vault for records and files	600 00
Hot-water pipes to cottages	200 00
Cisterns and pumps for cottages Nos. 1, 2, 3, and 9, and soft water connections to and pumps in Nos. 4, 5, 6, 7, and 8, and soft water connections to main building	500 00
Three horses, wagon and harness	500 00
Cows	600 00
Bake shop and cooling room for meat and milk	1,200 00
Excavation of basements under cottages Nos. 4, 5, 6, 7, and 8, and cement floors in 10 cottages	1,000 00
Total special for two years	$12,700 00

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Visiting Children in Families.

For a detailed report of the interior operations of the institution and of the work of indenturing and supervising of children in homes, reference is made to the valuable and interesting reports of Prof. Foster as Superintendent and State Agent. These exhibits will show that our children are carefully looked after during minority, in and out of the school, and that all proper attention is given to secure for them when in families good treatment and an elementary education. The laws of 1881 authorized the appointment of a State Agent, whose sole duty should be to procure homes and visit the children. So far the Superintendent has done this work. This Board fully recognizes the importance of visiting these children in their homes by some one directly connected with the school, so as to secure the better execution of indenture contracts in letter and in spirit. The work done in this line by the Superintendent the past summer has been very valuable to the school and the State. These double duties have been arduous, and are sincerely appreciated by us. Whether the future visiting of children in families will be done by the Superintendent or by another agent, as authorized, is not yet determined. But with a farther large increase of indentured children, it seems quite probable that it will become necessary to have an agent who can devote his whole time to the work. If this is done, this agent can do much that is now done by county agents, and, on the whole, the probable cost will be much less to the State than now. The salary and expenses of such an agent would not cost as much as it would to run one cottage with 25 or 30 children, and there is no doubt from our experience but that such an agent could place out more than that number of children each year, greater than can now be done, and secure greater efficiency in placing and indenturing.

Economy in Administration.

The cost for supporting and educating each child in the school per year, and placing it in a home is given in the report of the Superintendent and will be found to be only about the same as in the county poor-houses for support alone, as appears by the reports of the Superintendents of the Poor to the Secretary of State. It has always been the effort of the Board and Superintendent to run the institution in its general operations and business affairs on correct principles. A prudent economy that would not interfere with obtaining the best results has uniformly been in view. The buildings have been erected on competition, and all principal purchases are made at wholesale rates. The salaries paid to officers and employés are for services actually rendered. No payments are made for time spent in vacations. There are no direct or indirect payments of any kind that are not for time and work represented on the vouchers. The employés receive fair wages. The children are comfortably clothed. They have sufficient and healthy food. They are educated here in as good schools as there are in the primary and grammar departments of the city schools, and there is not probably another public institution in this country with less per capita expenses.

Officers and Employés.

The Board takes great pleasure in referring here to the uniform efficiency and faithfulness of the Superintendent and his co-workers in the school. The harmony and zeal, which is so necessary to success, which has marked their labors, has been very gratifying and deserves special commendation. Some

have thought that in a public institution the children would not receive that direct personal attention which they have in private asylums. But in this it is certain that in sickness and in health these little children are cared for with a tender solicitude by cottage managers, teachers, and others, and all is done for them that their own parents could ask. All employés who have to deal directly with the children are selected for their special fitness for the work, and who will have an improving and elevating influence on the children in their care. That all our employés have a sincere interest in the welfare of these children and devote to their care and training their best efforts we confidently believe.

In Memoriam.

The Hon. James Burns, of Detroit, was a member of this Board from November, 1875, until January, 1883, in which latter year he died, making a continued service for this institution of over seven years. He was well known in the State, and for many years was one of the most prominent, respected, and influential citizens of Detroit. While he was a member of this Board, this school was in its more especially formative period. He was constant in his attendance at board meetings, zealous and faithful in the discharge of his duties, bringing into the work a ripe business experience and an extended knowledge of the construction of buildings. He took a very sincere interest in the formation of the school and in its general operations. Though burdened with the management of large business interests of his own, yet he furnished the highly commendable example of a business man engaging in the moral elevation of his race. He was a genial Christian gentleman. In him this school has lost one of its best friends, and the State one of its most worthy and distinguished citizens.

Conclusion.

In this, and in the reports of the Superintendent and State Agent, there has been no effort to tell the best side of the story only. Successes and failures alike are recorded. When reared in the very best families, and amidst the most elevating influences, many a child falls by the way. They were noble by birth. Their parents were models of correctness. The school, the Sunday school, the church, and the pure family life, all were theirs, and yet they fell. So will some of these children fail to become good citizens. When we know that some have inherited criminal tendencies, through the veins of some courses the blood that has come from generations of pauperism, we wonder how few do fail to reach respectable citizenship. But take the results together as they are, we are confident that the verdict must be in favor of the Michigan system for dependent children—that this school is a credit to the State and to humanity, repaying many fold for its establishment and maintenance.

In conclusion we respectfully request the Governor, Legislature, and Superintendent of Public Instruction to examine here the financial and general management. In behalf of our dependent wards, we express their gratitude for what has been done for them, and solicit for them your favorable consideration as well as generally for the institution in our charge,

We are, with the highest respect, very sincerely yours,

ISAAC A. FANCHER,
R. E. CASE,
C. D. RANDALL,
Board of Control.

C. D. RANDALL,
Secretary,

SUPERINTENDENT'S REPORT.

To the Honorable Board of Control of the State Public School:

GENTLEMEN,—I submit herewith, for your consideration, the Tenth Annual Report of the State Public School, covering the biennial period ending Sept. 30, 1884:

Current Expenses for the Year ending September 30, 1883.

DEBIT.		CREDIT.	
Inventory Oct. 1 1882	$13,580 59	Inventory Oct. 1, 1883	$11,135 51
Bills payable Oct. 1, 1882	2,713 05	Paying last year's bills	1,441 96
Amount expended	36,597 05	Net current expenses	40,313 22
	$52,890 69		$52,890 69

Current Expenses for the Year ending September 30, 1884.

DEBIT.		CREDIT.	
Inventory Oct. 1, 1883	$11,135 51	Inventory Oct. 1, 1884	$12,150 92
Bills payable Oct. 1, 1883	1,178 21	Paying last year's bills	2,713 05
Amount expended	38,536 90	Net current expenses	35,986 65
	$50,850 62		$50,850 62

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TABLE II.—*Number Received, Indentured, Adopted, Married, etc., during past Two Years.*

	1882-3.	1883-4.	Total.
Number received	150	290	440
" adopted	14	56	70
" indentured	125	216	341
" married	2	7	9
" died	2	8	10
" returned to counties whence they came	23	54	77
" who have become of age	24	28	52
" remaining in the school Sept. 30	315	318	.....

TABLE III.—*Disposition of all Children Received since School Opened.*

Whole number received	1,672	
" " subject to visitation	.....	895
" " returned to counties	.....	209
" " adopted by order of probate court	.....	95
" " become of age	.....	68
" " married	.....	14
" " died	.....	57
" " belonging September 30, 1884	.....	334
	1,672	1,672

TABLE IV.—*Record of Children Indentured since School Opened.*

Whole number indentured	1,147	
" " returned to counties		86
" " married		14
" " adopted		44
" " died		10
" " became of age		68
" " returned to and remaining in school		30
" " subject to visitation September 30, 1884		895
	1,147	1,147

TABLE VIII.—*Present Age of School.*

Number between 3 and 4	8
" " 4 and 5	19
" " 5 and 6	31
" " 6 and 7	32
" " 7 and 8	48
" " 8 and 9	49
" " 9 and 10	44
" " 10 and 11	42
" " 11 and 12	24
" " 12 and 13	15
" " 13 and 14	9
" " 14 and 15	8
" " 15 and 16	3
" " 16 and 17	2
Total	334
Average age	8 1-5

TABLE IX.—*Present Standing of the School.*

Number reading in Chart	97
" " " First Reader	34
" " " Second Reader	54
" " " Third Reader	25
" " " Fourth Reader	10
" able to write letters	109
" " " add practical examples	91
" " " subtract practical examples	68
" " " multiply practical examples	18
" " " divide practical examples	10
" who know the multiplication table	18
" " are studying outlines of Geography	70
" " " " Swinton's Introductory Geography	34
" " " " Milnes's Primary Arithmetic	34
" " " " Milnes's Elementary Arithmetic	34

TABLE X.—*Course of Study.*

FIRST PRIMARY.

Calisthenics. Singing. Geography of the School-room. Making figures. Counting to 100.	Roman numerals. Reading from Chart. Spelling all words read. Drawing on slate.

SECOND PRIMARY.

Appleton's Chart and First Reader. Spelling. Writing on slates. Oral Arithmetic.	Addition and Subtraction. Learning counties, principal cities and rivers of Michigan. Drawing.

THIRD PRIMARY.

Appleton's Second Reader. Spelling all words in Reader. Oral Arithmetic. Multiplication and Division.	Writing. Drawing. Sheldon's Object Lessons. Geography of United States.

FIRST INTERMEDIATE.

Appleton's Third Reader. Milnes's Primary Arithmetic. Drawing.	Writing. Sheldon's Object Lessons. Swinton's Introductory Geography.

SECOND INTERMEDIATE.

Appleton's Fourth Reader. Hooker's Book of Nature. Writing. Drawing.	Milnes's Intermediate Arithmetic. Swinton's Geography. Map Drawing. Patterson's Common School Speller.

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TABLE XIV.—*Showing Time of Detention in the School.*

Months.	No.	Months.	No.	Months.	No.	Months.	No.	Months.	No.	Months.	No.
105	1	78	3	60	5	45	7	30	12	15	24
104	1	77	3	59	3	44	11	29	10	14	20
100	1	75	1	58	8	43	6	28	6	13	18
98	1	73	1	57	3	42	11	27	10	12	39
93	1	72	4	56	5	41	3	26	22	11	30
92	2	71	3	55	6	40	12	25	16	10	28
91	7	70	3	54	5	39	11	24	15	9	24
89	2	69	5	53	5	38	10	23	19	8	49
88	4	68	3	52	6	37	8	22	18	7	34
85	1	66	7	51	11	36	14	21	13	6	58
84	1	65	5	50	4	35	11	20	23	5	57
83	1	64	2	49	5	34	12	19	16	4	62
82	1	63	5	48	12	33	5	18	18	3	120
81	2	62	2	47	14	32	12	17	26	2	82
80	1	61	3	46	7	31	6	16	21	1	29
79	1										

Number who have been in the school less than one month, 55.
Average time of detention, 20 months, 2 days.

TABLE XV.—*Names of Officers and Employes, and Salaries.*

Presented in accordance with Act 206, Laws of 1881.

Names.	Grade.	Salary.
John N. Foster	Superintendent	$1,500 00
Galen A. Merrill	Assistant Superintendent	800 00
F. W. Morgan	Clerk	300 00
Fannie J. Foster	Manager	100 00
Sarah D. Parsons	Matron	384 00
Susan Sawyer	Cottage manager	312 00
Clara Anderson	Cottage manager	312 00
Fannie Russell	Cottage manager	312 00
Tide Bennett	Cottage manager	240 00
Louise C. Dixon	Cottage manager	312 00
Dora Watson	Cottage manager	312 00
Myra W. Smith	Cottage manager	240 00
Elizabeth F. Champlin	Cottage manager	312 00
Sarah F. Bailey	Cottage manager	312 00
Jennie F. Page	Cottage manager	300 00
Bella Booklass	Hospital manager	312 00
Kittie C. Miller	Cottage manager	240 00
Ella F. Corwin	Teacher	312 00
Esther A. Clark	Teacher	312 00
Lucelia E. Staples	Teacher	312 00
Bell Throop	Teacher	300 00
Sarah B. Goodman	Teacher	312 00
Susie M. McArthur	Seamstress	180 00
Ella R. Hazen	Seamstress	180 00
Martha J. Ranney	Seamstress	180 00
Addie Goodell	Dining room manager	168 00
Eva Underhill	Dining room manager	132 00
Genie Smith	Domestic	132 00
Ella M. Brown	Domestic	144 00
Sarah Straley	Domestic	132 00
Minnie Swift	Domestic	144 00
Theresa Millman	Domestic	60 00
Mary Yerskie	House cleaner	120 00
Margaret Sherman	Laundress	192 00
Nellie Grattan	Laundress	192 00
Callie Steffle	Laundress	144 00
Mary Primmer	Cook	192 00
Anna Norton	Cook	192 00
Edwin Mansell	Engineer	800 00
Charles Cozier	Assistant Engineer	384 00
Frank I. Sprague	Night watchman	240 00
Abram Greenwood	Baker	384 00
F. S. Sprague	Farmer	400 00
Daniel Lipe	Gardener	360 00
S. P. Swain	Teamster	240 00
George B. Newell	Laborer	240 00
L. H. Wurtz	Physician	250 00

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TABLE XVI.—*Showing Actual Cost for Current Expenses each Year since the School opened, and Average Population; also Number of Children cared for each Year in the School and in Homes, with Per Capita Cost in each Case.*

YEAR.	Total Cost for Current Expense.	Average Population.	Per Capita Cost.	Whole Number of Children Cared for.	Per Capita Cost.
1874-5	$27,546 68	159½	$172 70	221	$124 64
1875-6	29,412 66	218	134 92	298	98 70
1876-7	32,124 19	264	121 68	325	91 26
1877-8	34,064 23	271	125 69	412	82 68
1878-9	35,483 69	305⅔	116 06	420	84 48
1879-80	34,680 27	285⅓	121 33	454	76 39
1880-1	37,822 41	308	122 80	420	90 05
1881-2	37,864 57	311	121 75	422	89 72
1882-3	37,868 14	319	118 69	444	85 28
1883-4	37,002 06	318	116 36	582	63 58

The above current expense cost is based upon the actual sum paid out, deducting whatever was paid for previous year's bills.

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Cost Per Capita.

Table XVI presents the cost each year since the opening of the school for current expense, and presents an interesting study. While the ideal institution cannot be managed simply with reference to low per capita cost, it seems very desirable that these institutions should be managed as economically as is consistent with proper care and a regard for the fact that in Michigan, at least, we are not asked to be niggardly in our treatment of poor and helpless children. While it is true that the State has always been willing to provide liberally for all its defective and dependent ones, we feel that it is neither well for the tax-payers nor the one supported that excessive expenditure should be indulged.

Moderate expenditure has been a marked feature of this school since its opening, for in 1874 its per capita cost was but $172.70, with a comparatively small number of children. In 1879 it cost $116.41 for each child, and the highest cost since was in 1881 when it reached $122.80. During the past year it has cost $116.36 for each child, based upon the average number belonging to the school. When we consider the age of the children and the fact that in addition to supporting an average family of 318 children, 264 others have passed through the school into homes, involving the expense of two good suits of clothes, the low cost of maintenance is very apparent.

Adding to the average population for the past year the 264 placed in homes by indenture and adoption, it gives 582 children who have been cared for either at the school or in homes, where the State is relieved from their care, at an average cost of $63.58 for each child so provided for.

At the beginning of the past year there were 315 children present; 290 were received during the year, making 605 who have been under the care of the school, at a per capita cost of $61.16.

The large number of children placed in homes involves a large outlay for clothing and increases very rapidly this always expensive item of current expense.

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Amusements and Recreations.

As in former years, the children go to the woods frequently on pleasant days, attend the county fair, celebrate the "Fourth," enjoy Thanksgiving day with a special dinner and a general good time, while on Christmas they are bountifully remembered with a nice present for each one, by which the name of "Kittie Bagley" is made fresh and bright in the mind of each child who is taught that its present is in memory of the daughter of the large-hearted governor who never failed to remember the children of this school. The children also attend the various churches in the city and are frequently addressed by clergymen and visitors from this and other States.

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The Schools.

All children attend school five hours each, except during the summer months when such boys as are large enough work on the farm and in the garden, as we believe that training to work is as important as purely academic instruction. Our schools are graded as all the public schools of the State, but all departments are purely primary. This is all we can reasonably hope for with children who average but 8 1-5 years of age and have generally never attended school before coming here. While the progress made in school is quite surprising when we consider the utter lack of previous opportunities, and the fact that for the past four years the average time spent here has been but 11 2-7 months, it is not such as would be the case were the children kept here several years before going out; but we believe they are being better aided in their struggle in life by putting them into homes, and having them educated in the public schools about the State.

Teachers in schools of this character have much to discourage them. Rapid changes are made in the school population, and many children are placed in homes before it is possible to awaken an interest in study. Perhaps, by the time such an acquaintance is made with the child as leads to that personal interest so necessary for the best results, it goes out. So discouraging are these things, that were it not for the faithful work of the teachers, the good results attained would be impossible. We shall, in a short time, have a Kindergarten department for the younger ones, which, I feel confident, will help to train them not only to love to study, but to work. I look forward with hopefulness for good results to follow this departure.

The Work of the School.

It is the aim of the management of this school to regard the law founding it as the true interpreter of its policy, and treat the school as a "temporary home," and as rapidly as possible find family homes in which to place the children. So well has that policy been pursued that the average time of detention has been but 20 months and 2 days, and since 1880 the average has been but 11 2-7 months. Surely that represents to a child a "temporary home." The test of the real usefulness of the institution is not, however, the number of children placed in homes; but, rather, the number of these who shall be so cared for and trained in their homes as to be self-supporting, self-reliant, and self-respecting citizens. To this end the energies of its management should be directed. Under the law you have exercised your right to appoint an agent to visit, when deemed best, the wards of the school scattered

about the State, and report their condition. For full particulars regarding the condition of the children placed out, the homes in which they are placed, and all matters of interest pertaining to that work, I would respectfully refer you to the report of your agent which is submitted with this report. If, ten years ago, there may have been doubts in your minds as to what an institution like this might accomplish, I trust those doubts are now fully removed. It is no longer an experiment, but is so well founded and its results are so satisfactory that many other States are now considering the question of the establishment of similar schools, and Rhode Island has already passed a law establishing a school almost identical with this. The work of visiting during the past year having been done by the Superintendent, has involved a double duty, and perhaps has made necessary some neglect of little details of the home work; but it is believed the good attained has been in a direction greatly needed. You have long felt the need of positive knowledge regarding all the children out, and, as it has always been difficult to obtain the information in any other way, this plan has seemed the most feasible. However anxious the county agents may be to send full reports at the proper time, their business matters will not always permit them to act as promptly as is desirable. Although the reasons for such failures are, doubtless, in many cases good, the necessity for having the information is not lessened. And it is well to consider that every report made to the school is a voluntary service on the part of the agent, and not a duty imposed by law, as he is not required to make any report to the school.

During the past year 72 per cent. more children were indentured than during the previous year. There have been placed in homes by indenture during the year 305 children, 89 of whom had before been indentured; but in the table referred to no duplicating of names occurs, as the 216 referred to as indentured is the number of new indentures, excluding all re-indentures. In addition to the 305 indentured and re-indentured, 44 others have been adopted, and at the close of the year 56 are still on trial, making 405 children who have gone into homes during the past year. The 89 re-indentured ones would have otherwise been inmates of the school. Comparatively few children have been returned, and the school has been enabled to fulfill its mission of caring temporarily for all dependent children in the State.

During the past year you decided to take all children possible to care for, and passed a resolution in February last to receive children between the ages of 3 and 13, instead of between the ages of 3 and 12, as for several years past. This additional limit has created no embarrassment, as there have been so few children over 12 seeking admission. I am led in this connection to suggest that, in general, children who have reached the age of 12 are not, if intelligent, necessarily dependent upon the public for support, and the few of that age properly admissible here might easily be placed in homes in their own counties. I desire to recommend that the Legislature be asked to so amend the law as to admit children between the ages of 2 and 12 years of age, permitting the Board to give preference to those over 3. This will at once relieve the county houses of all healthy children over 2, and enable us to supply a class of homes constantly seeking children younger than we can now receive. I feel assured that it must be a matter of pleasure to you, and will be a source of gratification to the Legislature and tax payers that we are not compelled to ask for appropriations to build more cottages or otherwise enlarge the institution. Rapid growth of penal and charitable institutions is so general that

I rejoice with you over the fact that this charity, so far-reaching in its possibilities for good, is at present able to care for all the class it is to provide for without enlarging its borders.

Conclusion.

I desire to thank the Coldwater Republican, Coldwater Courier, Lansing Republican, Grange Visitor, Church Helper, Deaf and Dumb Mirror, Grand Traverse Eagle, and Three Rivers Reporter for copies of their papers; the American Baptist Publication Society, of Philadelphia, for the gift, through their agent, Rev. E. D. Rundell, of New Buffalo, of 250 Bibles, and Mrs. James Burns, of Detroit, for half a barrel of candy as a Christmas gift to the children.

I would be doing my own feelings injustice did I not in this public way express my personal obligations to and appreciation of the faithful services of subordinate officers and employés. The cordial support they have given in carrying out the details of a great work, and the willing sacrifices made in trying emergencies (as during the sickness of the past year), have shown their devotion to the work in which they are engaged. It is rarely the good fortune of an institution to have so large a force of faithful workers together, and if some degree of success has attended our efforts it is largely due to their faithful work and hearty coöperation.

I realize somewhat the anxiety with which you gentlemen must have turned from your well-tried and efficient Superintendent to the new worker whom you invited to the field. But for your assurance of cordial support and words of encouragement it would have been impossible to have made even a beginning, and without your wise counsel, steady forbearance, and cordial support the good we hope has been accomplished would have been impossible.

Respectfully submitted,

JOHN N. FOSTER,
Superintendent.

ADRIAN COLLEGE.

REPORT OF THE PRESIDENT.

HON. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR—I have the honor to submit the following report of Adrian College for the year ending June 27, 1884:

The Faculty for the year has been constituted as follows:

David S. Stephens, President and Professor of Mental Science.
George B. McElroy, D. D., Ph. D., Professor of Mathematics.
Bernard H. Rupp, Professor of Instrumental Music and German.
Martin L. Jennings, M. A., Professor of Hebrew and Latin.
John Kost, M. D., LL. D., Curator of Museum.
Charles E. Wilbur, M. A., B. D., Professor of History and English Literature.
Wilbert Ferguson, M. A., Professor of Greek.
J. D. H. Cornelius, M. A., Acting Professor of Latin.
Walter H. Howard, B. S., Professor of Chemistry and Physics.
Joseph F. McCulloch, B. A., Assistant Professor of Mathematics.
Samuel K. Spahr, M. S., Instructor in Homiletics.
Geo. B. McElroy, D. D., Ph. D., Dean of the Theological School, and Amos Professor of Systematic Theology.
Edson G. Walker, M. S., Instructor in Elocution.
Amsbury L. Reynolds, M. A., General Agent.
W. H. Carrier, Principal of the School of Commerce, and College Accountant.
Mary E. McGary, Preceptress and Instructor in French and Vocal Music.
W. Ferguson, M. A., Registrar and Secretary of the Faculty.
Delos J. Cotton, B. S., Financial Secretary.
E. B. Rood, B. A., Librarian.

At the commencement in June the following degrees were conferred:

Bachelor of Arts	3
Bachelor of Science	1
Bachelor of Philosophy	8
Master of Science	1
Master of Arts	1
Doctor of Divinity	1
Graduates of Normal School	4

The number of students in attendance in the various departments of the College were as follows:

College of Literature	58

Preparatory School	69
School of Music	52
School of Theology	3

The following are requirements for admission from candidates for the degree of Bachelor of Arts:

Students will be admitted as candidates for the degree of Bachelor of Arts upon passing a satisfactory examination in the following branches of study:

I. ENGLISH LANGUAGE.—Elements of English Grammar; Analysis of Sentences; Orthography and Orthoepy; Punctuation and the Structure of Sentences.

II. GEOGRAPHY.—Political and Descriptive Geography of the United States and Europe; Physical Geography; Ancient Geography, especially that of Greece, Italy, and Asia Minor, should be studied along with the preparatory Greek and Latin.

III. HISTORY.—History of the United States; classical students should also be taught Roman and Grecian History in connection with the preparatory classical studies. Leighton's History of Rome and Smith's History of Greece are recommended as text-books.

IV. MATHEMATICS.—*Arithmetic.* The fundamental operations—Common and Decimal Fractions, Compound Numbers, Proportion, Percentage, Involution and Evolution, and the Metric System of Weights and Measures.

Algebra. Definitions and Fundamental Rules, Factors, Fractions, Elimination, Involution and Evolution, Quadratic Equations, Simple Indeterminate Equations, Inequalities, Theory of Exponents, Logarithms, Ratio, Proportion, Variation, Series, Binomial Theorem, Interest Formulas, Indeterminate Coefficients, Exponential Theorem, Differential Method, Imaginary Numbers, Equations in General, Higher Numerical Equations.

Geometry. Wentworth's Plane, Solid and Spherical Geometry, or an equivalent.

V. PHYSIOLOGY.—As much as is presented in the smaller text-books upon the subject.

VI. PHYSICS.—Elementary Principles in Mechanics, Hydrostatics, Pneumatics, Sound and Light, Heat and Electricity.

VII. CIVIL GOVERNMENT.

VIII. LATIN.—*Grammar.* A thorough preparation in the elements. Allen and Greenough's Grammar is recommended; but the Manuals of Harkness, Chase, or Gildersleeve, may be used for this purpose.

Prose Composition. Jones's Exercises in Latin Prose Composition; or Harkness' Introduction to Latin Composition, from page 50 to page 166; or forty-four exercises in Arnold's Latin Prose Composition.

Reading. Four books of Cæsar's Commentaries; six select orations of Cicero; and the first six books of the Æneid, to be accompanied with the study of Prosody. The Roman pronunciation of Latin is used. It is believed that three years of earnest labor, with good facilities, will be sufficient for this work, but many students will find it desirable to devote four years to the above preparatory course in Latin.

IX. GREEK.—Thorough preparation in the essentials of Grammar. Goodwin's Grammar is used and recommended.

Prose Composition. Jones' Exercises in Greek Prose Composition, with the accents. An equal amount of work in any thorough text-book will be accepted.

Reading. Three books of the Anabasis; selections from books VI, VII, VIII, of Herodotus. Close attention will be paid to the grammar of the texts read, and students will be expected to show familiar acquaintance with the history and geography. Two years of faithful study will be required to complete this preparatory work.

The requirements of candidates for the degree of Bachelor of Science are the same as for the Classical, except that a student will be required to complete only the first two years in Latin, or the prescribed Greek.

The requirements of candidates for the degree of Bachelor of Philosophy are the same as for the Classical, except that a student may omit either the Latin or the Greek.

The requirements of candidates for the degree of Bachelors of Letters are the same as for the Classical, except that Greek and Geometry are omitted, and one year only of Latin is required. Ladies only are admitted as candidates for this degree.

The following are the courses of study given during the year in the academic department.*

I. CLASSICS.

I. Latin.

Latin Grammar; Cæsar, 4 Books; Cicero, 6 orations; Virgil's Æneid, 6 Books; Jones's Latin Prose Composition, 40 exercises.

1. Livy (Books XXI and XXII). Latin Prose Composition. Three hours a week, first and second terms. 81 hours.

Same as for course 1.

2. Tacitus (Life of Agricola). Three hours a week, third term. 36 hours.

Livy.

3. Plautus (The Captives). Terence (Andria). Three hours a week, first term. 45 hours.

Plautus.

4. Horace (Odes, Epodes); (Satires and Epistles, or selections from Juvenal). Three hours a week, second and third terms. 72 hours.

Ancient History; Livy; Rhetoric.

5. Quintilian. (Books X and XII). Two hours a week, first and second terms. 54 hours.

Quintilian.

6. Cicero (De Oratore, Book I). Two hours a week, third term. 24 hours.

De Oratore; Mental Science.

7. Cicero (De Natura Deorum), or Seneca's Letters. Two hours a week, first and second terms. 54 hours.

II. Greek.

Greek Grammar; Prose Composition (Jones' Exercises—with special attention to the accents;) three books of Xenophon's Anabasis; Herodotus, selections from Books VI, VII, VIII.

1. Thucydides (Books I and II). Boise's Prose Composition. Three hours a week through the year. 117 hours.

Rhetoric; Herodotus.

2. Homer (six books of the Iliad). Three hours a week, first term. 45 hours.

Homer.

3. Sophocles (Antigone, or Œdipus Tyrannus). Three hours a week, second and third terms. 72 hours.

Thucydides.

4. Lysias (selected orations). Two hours a week, first term. 30 hours.

Lysias.

5. Demosthenes (On the Crown). Two hours a week, second and third terms. 48 hours.

Mental Science; Demosthenes.

6. Plato (Apology and Crito). Two hours a week first term. 30 hours.

Plato.

7. Æschylus (Prometheus Bound). Two hours a week, second term. 24 hours.

III. Hebrew.

1. Conant's Gesenius' Hebrew Grammar. Biblia Hebraica. Two hours a week through the year. 78 hours.

II. ENGLISH LANGUAGE AND LITERATURE.

English Grammar; Analysis of the English Sentence; Punctuation; Orthography.

1. Rhetoric. Text-books: Hill's Rhetoric; Gilmore's Art of Composition. Frequent practical exercises with special reference to Diction and Structure of the Sentence. Two hours a week through the year. 78 hours.

Rhetoric; General History.

2. History of English Literature. Text-books: Arnold's Manual of English Literature, Taine's English Literature. Original studies of representative writers in each period, with themes. Three hours a week through the year. 117 hours.

* Studies printed in small type are preliminary, and must be completed before beginning the course immediately below.

Rhetoric.

3. Early English—Chaucer: Prologue to Canterbury Tales, and Parliament of Foules. William Langlande: Vision of Piers Plowman. One hour a week through the year. 39 hours.

History of English Literature.

4. Study of Masterpieces. Pope's Essay on Criticism; Milton's Areopagitica; Bacon's Essays; Gray's Elegy; Bryant's Thanatopsis. One hour a week through the year. 39 hours.

History of English Literature.

5. Study of Shakespere. Selections from Hamlet, Merchant of Venice, Richard II., Macbeth, and Twelfth Night. One hour a week through the year. 39 hours.

English Literature; Psychology.

6. Philosophy of Composition. Text-books: Baine's Principles of Composition, and Campbell's Philosophy of Style. Lecture on the Principles of Literature. Two hours a week through the year. 78 hours.

III. MODERN LANGUAGES.

I. French.

1. Beginning French. Text-book: Duffet's French Method. Part I and selections from part II. Three hours a week through the year. 117 hours.

Course 1 in French.

2. French Literature. Text-book: Duffet. Two hours a week, first term. 30 hours.

Course 2 in French.

3. Cousin's Cours de l'Histoire de la Philosophie (2 tomes). Two hours a week, second and third terms. 48 hours.

II. German.

1. Beginning German. Text-books: Otto's Grammar; Jones's Otto's German Reader. Three hours a week through the year. 117 hours.

Course 1 in German.

2. German Plays. Text-books: Ahn's Dramatic Plays. Two hours a week, first term. 30 hours.

Course 2 in German.

3. German Classics. Schiller's Marie Stuart, or William Tell; Goethe's Iphigenie. Two hours a week, second and third terms. 48 hours.

IV. MATHEMATICS.

Algebra; Geometry.

1. Trigonometry—Plane and Spherical. Text-book: Wentworth's Trigonometry. Three hours a week, first and second terms. 81 hours.

Trigonometry.

2. Analytical Geometry. Text-book: Peck's Analytical Geometry. Three hours a week, second and third terms. 72 hours.

Analytical Geometry.

3. Calculus—Differential and Integral. Text book: Rice and Johnson's Calculus. Three hours a week, first and second terms. Two hours a week, third term. 105 hours.

Calculus.

4. Mechanics. Text-book: Smith's Mechanics. Three hours a week, first and second terms. 81 hours.

Trigonometry.

5. Surveying. Text-book: Schuyler's Surveying. Two hours a week, second term. 24 hours.

Mechanics.

6. Astronomy—Spherical and Physical. Text-book: Norton's Astronomy. Two hours a week. 78 hours.

V. HISTORY.

United States History.

1. General History. Text-book: Swinton's Outlines of History. Three hours a week, first term. 45 hours.

General History.

2. English History. Text-book: Green's Short History of the English People. Three hours a week, second and third terms. 72 hours.

General History.

3. History of Civilization in the Middle Ages. Text-book: Guizot. Two hours a week through the first term. 30 hours.

English History.

4. Roman and Mediæval History. Text-book: Gibbon's Decline and Fall of the Roman Empire (Selections). Two hours a week through the year. 78 hours.

VI. POLITICAL SCIENCE.

General History; Psychology.

1. Political Economy. Text-book: Bowen's Political Economy; Selections from J. S. Mills' Political Economy. Three hours a week, first term. 45 hours.

History of Civilization.

2. Sociology. Text-book: Bagehot's Physics and Politics, Spencer's Sociology. Two hours a week, second and third terms. 48 hours.

Political Economy.

3. International Law. Text-book: Wolsey's International Law. Three hours a week, second term. 36 hours.

VII. PHILOSOPHY.

Rhetoric; Physiology; English Literature.

1. Psychology. Text-book: Porter's Elements of Intellectual Science, Parts I, II, and III. Three hours a week, first and second terms. 81 hours.

Psychology.

2. Metaphysics—Lectures and Recitations. Text-books: Porter's Intellectual Science, Part IV, and Hamilton's Lectures on Metaphysics. Three hours a week, third term. 36 hours.

Psychology.

3. Deductive Logic. Text-books: Jevon's Logic; Bain's Deductive Logic. Three hours a week, first term. 45 hours.

Psychology; Botany, Zoology or Physics.

4. Inductive Logic. Text-books: Fowler's Inductive Logic; Mill's System of Logic, selections from Books III and IV. Three hours a week, second and third terms. 72 hours.

Psychology.

5. Moral Science. Text-book: Calderwood's Moral Philosophy. Three hours a week, third term. 36 hours.

Metaphysics.

6. History of Philosophy—Lectures and Recitations. Text-books: Schwegler's History of Philosophy; Eucken's Fundamental Concepts of Modern Philosophic Thought. Two hours a week through the year. 78 hours.

Psychology.

7. Theism—Lectures and Recitations. Text-books: Bowne's Theism; Diman's Theistic Argument. Three hours a week, third term. 36 hours.

VIII. PHYSICAL SCIENCE.

Elementary Philosophy; Geometry; Trignometry.

1. Physics—Experimental Lectures and Recitations. Text-book: Atkinson's Ganot's Physics (eleventh edition). Three hours a week through the year. 117 hours.

Course in Physics.

2. General Chemistry—Experimental and Recitations. Text-book: Elliott and Storer's Manual. Three hours a week, first and second terms. 81 hours.

General Chemistry.

3. Analytical Chemistry—Laboratory work in Qualitative Analysis, with Lectures. Text-book: Hill's Lecture Notes on Qualitative Analysis. Three hours (equivalent) a week, third term. 36 hours.

IX. NATURAL HISTORY.

Natural Philosophy.

1. Botany—Structural and Systematic. Text-book: Wood's Florist and Botanist. Two hours a week through the year. 78 hours.

Anatomy and Physiology.

2. General Zoölogy. Text-book: Orton's Comparative Zoölogy. Three hours a week, first term. 45 hours.

Botany; Zoölogy.

3. Geology—Recitations and Lectures. Text-book: Le Conte's Geology. Three hours a week, second and third terms. 72 hours.

X. CHARACTER-BUILDING.

1. Lectures—Analysis of Human Nature; Elements of Conduct; Laws of Attention and Habit, as affecting Character; Selecting and Confirming Dispositions; Ideals of Character, etc. Two hours a week through the year.

REGULATIONS.

Each student may take a sufficient number of courses to amount to fifteen hours per week. More than this cannot be taken without special permission from the Faculty.

The degree of Bachelor of Arts will be conferred on the completion of 750 hours of work in the Department of Classics, together with a sufficient number of courses in other Departments to amount in all to 2,200 hours.

The degree of Bachelor of Science will be conferred on the completion of 750 hours of work in the Departments of Mathematics, Physical Sciences, and Natural History, together with a sufficient number of courses in other Departments to amount in all to 2,200 hours.

The degree of Bachelor of Philosophy will be conferred on the completion of 750 hours of work in the Departments of English Literature, Philosophy, History, and Political Science, together with a sufficient number of courses in other Departments to amount in all to 2,200 hours.

The financial condition of the College may be briefly given as follows: Value of grounds, buildings, apparatus, etc., $128,000; endowments, $114,000. About 40 per cent. of endowments are invested in securities, the remainder in notes.

The principal donors to the Endowment Fund are Joseph J. Amos, of Rushville, Ind.; William M. Hamilton, of Wenona, Ill., and Calvin Tompkins, of Tompkins' Cove, N. Y. The first has endowed the Chair of Systematic Theology in the sum of $20,000.00; the second has given $11,236.00 toward the endowment of another Chair, and the third has contributed $10,000.00 to the General Fund. These sums, as well as a portion of the Endowment Fund obtained by general subscription, are now invested in real estate securities, and yielding income.

The policy of the Board of Trustees is to keep expenses strictly within income, and through this conservative management it is believed that the College will rapidly move forward to a larger usefulness.

Respectfully submitted,

D. S. STEPHENS,
President.

ALBION COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—I have the honor to present herewith the report of the condition and work of Albion College for the year ending June 21st, 1884, as supplemental to the statistical report forwarded to your office a few days ago. The institution has made substantial gains during the year. The attendance of students was 340, an increase of 78 over the year previous, and were classified as follows:

COLLEGE.

Seniors	12	
Juniors	11	
Sophomores	15	
Freshmen	24	62

SCHOOL OF ART.

Conservatory of Music.

Students on piano	92	
Students on organ	13	
Students on violin	17	
Students on viola	2	
Students on 'cello	5	
Students in voice culture	28	
Harmony	41	198
Counted more than once		57
		141

Painting.

Fourth year	1	
Third year	5	
Second year	1	
First year	8	15

PREPARATORY SCHOOL.

Fourth year	17	
Third year	32	
Second year	18	
First year	73	140
Academic students		20
		378
Counted more than once		38
Total		340

The following named persons comprise the Board of Instruction:

Rollin C. Welsh, Secretary.

Rev. L. R. Fiske, D. D., LL. D., President and Professor of Moral and Intellectual Philosophy.

Rev. Rollin C. Welch, A. M., Greek and Hebrew Languages and Literature.

Rev. Samuel Dickie, M. S., Astronomy and Applied Mathematics.

Delos Fall, M. S., Natural Science.

Fred M. Taylor, A. M., History and Belles Letters.

Henry A. Mills, Drawing, Painting, and Architecture.

Carl B. Scheffler, Director of the Conservatory and Professor of Piano, Harmony, and Counterpoint.

Rena A. Michaels, Ph. D., Modern Languages.

S. D. Barr, A. M., Mathematics.

R. S. Avann, Ph. D., Latin Language and Literature.

Stewart F. Ganung, Piano and Organ.

Mattie A. Reynolds, Violin.

Perry Averill, Voice Culture.

E. Josephine Clark, A. M., Instructor in English Language and Literature.

Hattie Clark, Teacher of Piano.

Herman C. Scripps, Teacher of Piano.

R. A. Martin. M. D., Teacher of Physiology.

Charles H. Gordon, Teacher of Bookkeeping.

L. W. Underwood, Teacher of Arithmetic.

Clara L. Peck, Teacher of Elocution.

As in your circular No. 19 you request that the courses of study pursued be reported, I present herewith a schedule of our work. The preparatory instruction covers four years, and the college work four years, as follows:

PREPARATORY COURSE.

First Year.

First Term.—Arithmetic. Grammar. French. Rhetoricals.
Second Term.—Arithmetic. Grammar. French. Rhetoricals.
Third Term.—Arithmetic. Analysis. French. Word Analysis. Rhetoricals.

Second Year.

First Term.—Algebra. English Composition. U. S. History (1783–1884). German. Rhetoricals.
Second Term.—Algebra. U. S. History (1492–1783). Rhetoric. German. Rhetoricals.
Third Term.—Algebra. Civil Government. American Literature. Rhetoric. French. Rhetoricals.

Third Year.

First Term.—Latin. Physics. Algebra. European History (1789-1882). Rhetoricals.
Second Term.—Latin. Physics. German. European History (1648-1789). Rhetoricals.
Third Term.—Latin. Botany. German. French. English Literature. Rhetoricals.

Fourth Year.

CLASSICAL COURSE.

First Term.—Greek. Latin. Geometry. Hist. Reformation. Rhetoricals.
Second Term.—Greek. Latin. Geometry. Physiology.
Third Term.—Greek. Latin. Geometry. Illustrative Drawing. Mediæval History. Rhetoricals.

LATIN SCIENTIFIC COURSE.

First Term.—Latin. Geometry. Physical Geography. Hist. Reformation. Rhetoricals.
Second Term.—English Literature. Latin. Geometry. Mechanical Drawing. Physiology.
Third Term.—El. Physics. Latin. Geometry. Illustrative Drawing. Mediæval Hist. Rhetoricals.

SCIENTIFIC COURSE.

First Term.—Greek or Latin. Geometry. Hist. Reformation. Phys. Geography. Rhetoricals.
Second Term.—Greek or Latin. Eng. Literature. Geometry. Physiology. Mechanical Drawing.
Third Term.—Greek or Latin. El. Physics. Geometry. Illustrative Drawing. Mediæval Hist. Rhetoricals.

EXPLANATORY.

1. The Preparatory curriculum covers four years.
2. In the first three years the studies in all the courses are identical.
3. By the extension to four years, students are admitted earlier than heretofore, and carried to a higher plane of scholarship.
4. This re-construction of the course makes provision for the fullest benefit from the study of Modern Languages previous to that of the Ancient.
5. There is less of Latin and Greek in the Preparatory School, but more in the College.
6. The order and character of the work here provided, it is claimed, supplies the most rational preparation for the four years of College study which will follow.
7. Students are not compelled to enter at the beginning of the first year, but at any place for which they are fitted by scholarship previously gained.
8. In all cases in which young persons in any of our schools have carried forward their work in a different order from that which we have adopted, they will receive credit for the branches mastered, and can subsequently bring up the studies in which they are deficient, so that they will not thereby suffer in their classification. This principle will be applied both in the Preparatory School and the College.

COLLEGE COURSES.

CLASSICAL COURSE.

Freshman Year.

First Term.—Greek. Latin. Astronomy. History, Roman Empire. Rhetoricals.
Second Term.—Greek. Latin. Geometry. French or German. Astronomy. Rhetoricals.
Third Term.—Greek. Latin. Zoölogy. French or German. Rhetoricals.

Sophomore Year.

First Term.—Greek. Latin. Trigonometry. Grecian History. Rhetoricals.
Second Term.—Greek. Latin. Physics. History, Ancient Oriental. Rhetoricals.
Third Term.—Greek. Latin. Chemistry. Physics. Rhetoricals.

Junior Year.—Philosophy.

First Term. –Psychology.
Second Term.—Logic. Psychology. Collateral Research.
Third Term.—Moral Science. Collateral Research. Logic. Collateral Research.

Theology.

First Term.—Hebrew. Old Testament History.
Second Term.—Hebrew. New Testament History.
Third Term.—Hebrew. Church History.

Latin.

First Term.—Horace. Lyric Metres. Latin Literature.
Second Term.—Horace. Lyric Metres. Latin Literature.
Third Term.—Livy. Tacitus. Latin Literature.

Greek.

First Term.—Epic Poetry. Dialects. Metres. Composition.
Second Term.—Epic Poetry. Dialects. Composition. Mythology.
Third Term.—Lyric Poetry. Composition. Metres. Philology.

Natural Science.

First Term.—Inorganic Chemistry.
Second Term.—Organic Chemistry. Collateral Research. Mineralogy. Collateral Research.
Third Term.—Hist. Geology. Dynamic Geology. Biology. Botany—Systematic; Physiological.

History.

First Term.—Political Economy. Collateral Research.
Second Term.—Political Economy. History of Civilization. Collateral Research.
Third Term.—History of Civilization. Collateral Research.

English.

First Term.—Transitional English. Collateral Research. Rhetoric Advanced.
Second Term.—Transitional English. Collateral Research. Rhetoric Advanced.
Third Term.—Anglo-Saxon. English Philology and Literature. Elocution.

Applied Mathematics.

First Term.—Calculus. Surveying. Physics. Collateral Research.
Second Term.—Calculus. Physics.
Third Term.—Physics.

Modern Languages.

First Term.—Italian. Contemporary French Literature. Littres's History of French Literature. Contemporary German Literature.
Second Term.—Italian. French Literature of the 16th, 17th, and 18th Centuries. Philological History of German Literature. German Literature of the 16th, 17th, and 18th Centuries.
Third Term.—Italian. Biographical and Literary History of French Dramatists and Poets. Biographical and Literary History of German Poets and Philosophers.

Senior Year.—Philosophy.

First Term.—Moral Science. Collateral Research. History of Philosophy. Collateral Research.
Second Term.—Hist. Philosophy. Collateral Research. Theism.

Theology.

First Term.—Greek Testament.
Second Term.—Greek Testament. Shedd's Homiletics.
Third Term.—Evidences of Christianity. Greek Testament. Shedd's Homiletics.

Latin.

First Term.—Tusculan Disputations. Roman Philosophy—Seneca.
Second Term.—Tusculan Disputations. Roman Philosophy—Marcus Aurelius.
Third Term.—Latin Hymns. Terence. Plautus.

Greek.

First Term.—Drama. Metres. Philology. Literature.
Second Term.—Drama. Philology. Literature. Mythology.
Third Term.—Plato. Philology. Literature.

Natural Science.

First Term.—Sanitary Science. Systematic Zoölogy.

History.

First Term.—International Law. Collateral Research.
Second Term.—International Law. Collateral Research. Civil Liberty.
Third Term.—Civil Liberty.

English.

First Term.—Anglo-Saxon. English Philology and Literature. Trench on Words. Elocution.
Second Term.—English Literature. Collateral Research. English Philology. Collateral Research. Elocution.
Third Term.—English Literature. Collateral Research. English Philology. Collateral Research. Oratory.

Applied Mathematics.

First Term.—Astronomy. Collateral Research.
Second Term.—Astronomy. Collateral Research.
Third Term.—Astronomy. Collateral Research.

Modern Languages.

First Term.—Italian Literature. French Literature of the Middle Ages. Spanish. Bartsch's Old French.
Second Term.—Italian Literature. History of German Literature Previous to the Reformation. Spanish Literature. Review of the Romance Languages.
Third Term.—Italian Literature. Spanish Literature. General Review of the Literature of Southern Europe. Critical Thesis.

LATIN SCIENTIFIC COURSE.

Freshman Year.

First Term.—Algebra. Latin. Astronomy. History—Roman Empire. Rhetoricals.
Second Term.—History—Early Rome. Latin. Geometry. French or German. Astronomy. Rhetoricals.
Third Term.—Geometry. Latin. Zoölogy. French or German. Rhetoricals.

Sophomore Year.

First Term.—French. Latin. Trignometry. Grecian History. Rhetoricals.
Second Term.—General Geometry. Latin. Physics. History—Ancient, Oriental. Rhetoricals.
Third Term.—Calculus. Latin. Chemistry. Physics. Rhetoricals.

The studies of the Junior and Senior years are elective from the list given in the course of studies for these years in the Classical course.

SCIENTIFIC COURSE.

Freshman Year.

First Term.—Algebra. Mechanical Drawing. Astronomy. History—Roman Empire. Rhetoricals.
Second Term.—History—Early Rome. Microscopy. Geometry. French or German. Astronomy. Rhetoricals.
Third Term.—Geometry. Botany—Systematic; Physiological. Zoölogy. French or German. Rhetoricals.

Sophomore Year.

First Term.—French. Systematic Zoölogy. Trigonometry. Grecian History. Rhetoricals.
Second Term.—General Geometry. History of Civilization. Physics. History—Ancient, Oriental. Rhetoricals.

Third Term.—Calculus. History of Civilization. Chemistry. Physics. Rhetoricals.

The studies of the junior and senior years are elective from the list given in the course of studies for these years in the classical course.

When the student reaches the beginning of the Junior year, he is regarded as prepared for more independent work than he could wisely attempt in the earlier part of his course. Henceforth, his individual preferences are largely consulted. It will be seen that lines of study and investigation are provided, from which he may select the branches to be pursued. We invite attention to the following points:

1. All studies in these two years are elective.

2. Students must select from at least *two* lines.

3. It is recommended that they select from *three* lines—they must not select from more than *five* lines. These selections will be made under the advice of the Faculty, so that consistency of work may be secured.

4. The student will be required to have fifteen hours of recitation each week. The work designated as "collateral research" may be pursued to the extent of the hours included in brackets, and counted as part of the course. All bracketed work is intended to be collateral research in connection with the subjects named.

5. The Degree conferred at graduation will be determined by the course pursued up to the close of the Sophomore year. If, previous to that time the student has taken the studies of the classical course, his degree will be "Bachelor of Arts"; if Latin Scientific, it will be "Bachelor of Philosophy"; if Scientific, it will be "Bachelor of Science." The Junior and Senior studies will be largely of a university character, preparing the student for independent investigation when, from graduation, he must carry forward his studies without the presence and guidance of the living teacher. The lines of study provided have been made so broad and varied that the candidate for any of the professions, as well as the business man, can obtain here the scholarship which will best fit him for his chosen and anticipated mode of life.

The College grounds include about fifteen acres. The buildings are four in number. One of these is the astronomical observatory, erected the past year, and supplied with appropriate and valuable instruments. It cost $10,000. The other three buildings contain the chapel, the lecture and recitation rooms, the laboratory, museum, art gallery, library and reading room, music rooms, and society halls. One of these buildings is 50x100 feet and four stories high. Each of the other buildings is 46x80 feet and three stories in height. Aside from these is a dwelling for the janitor contiguous to the regular college buildings.

The year 1884 being the centennial of the Methodist Episcopal Church, the College is engaged in a movement to raise a fund for the larger endowment of the institution. This movement will be carried forward indefinitely, a beginning only being made this year. It is impossible to report the exact amount secured at this date, as the several sums are not to be paid into the treasury until Christmas. We are hoping for large results ultimately, but the stringency of the times at present operates greatly against our efforts.

In my last report I made a somewhat full statement of the principles on which is based the special educational system we inaugurated two years ago. I will not repeat the arguments presented at that time, but will only say that

these twelve months have strengthened our conviction of the value of the method employed. We discover decided advantages attending the order in which modern languages are studied before the ancient. The facility in learning language thus gained previous to the work of mastering the Latin and Greek which, from their highly inflectional character, put special difficulties in the way of young students, is found to be no inconsiderable preparation for this important part of the College course. We are gratified at the success that has attended our efforts to make a College curriculum on a more philosophical plan. We are also gratified that several of the leading Colleges of the country have, since our inauguration of the system, taken steps in the same direction.

We have now in progress a special movement for largely increasing the size and value of the library. This grows out of our centennial.

All of which is respectfully submitted.

L. R. FISKE,
President.

REPORT OF THE BOARD OF VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—The committee honored by your appointment, as visitors to Albion College, take pleasure in bearing testimony to the generally prosperous condition of the institution. The College gives evidence of a growing and successful state.

The recent change in the plan of study from the ordinary to the more philosophical method is working well, and though it would be premature to affirm its absolute success, still the change has given a stimulus to the intellectual life of the College, and gives promise of meeting the sanguine expectations of its promoters and advocates. It is called "the natural order," and its adoption was justified by analogies, and also by the sanction of leading educators both in this and the old countries. Still the final verdict can only come through its application to a whole generation of graduates.

This College, centrally and beautifully located, under the patronage of the Methodist Episcopal church, and manned by an exceptionally able Faculty, is necessarily one of the representative educational institutions of our State. We are glad to be able to report that it is taking on larger scope and developing a fuller power. Taking occasion of the centenary of the patronizing church, a movement has been placed on foot to secure a liberal endowment and an extensive apparatus, through the Asbury Centenary and the Asbury Library Associations. These efforts have a reflex action upon the school and are at once stimulating all its interests as well as giving to it a justifiable popularity.

The astronomical observatory, with its valuable furniture, is an immense acquisition to the school. The museum, the laboratory and the art gallery are a credit to the institution; the library is a valuable one and increasing rapidly in literary treasures; the conservatory of music is a very conspicuous feature among the advantages which the College offers to its patrons. We were exceedingly gratified with the management and with the work being done, being

impressed with the discipline, the air of cleanliness about the buildings, and of thoroughness among the students.

It gives us great pleasure to bear testimony to the stability and manifest progress which this school of learning is making; to the moral healthfulness of the training here received, as also to the efficiency of the administration of all the affairs of the College.

Very respectfully,

JOHN N. FOSTER,
J. Q. ADAMS,
W. H. THOMPSON,
Visitors.

BATTLE CREEK COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—In harmony with the statutes of this State, I beg leave to submit the following report of the Battle Creek College for the Academic year which ended June 30, 1884:

1. As regards the condition of the educational interests of Battle Creek College, permit me to say that they are at the present time in a good condition, fully as good as could be anticipated under the circumstances. As the College was closed during the year previous to the one covered by this report, it was feared that it would be very difficult to secure as large an attendance by considerable as was obtained during the first year after the reopening of the College, *i. e.* the year ending June 30, 1884. At the commencement of the year the number of scholars in attendance was about 80. During the year the enrollment reached 284. So far as the finances of the College are concerned, it is perhaps enough to say that while, like most institutions of its kind, it is not self supporting when the receipts for tuition merely are considered, provision has been made for the raising of funds by subscriptions, which will be ample not only for the payment of its debts, but also for the erection of all the necessary buildings and the creation of a liberal endowment fund.

Below you will find a full report of the Treasurer of our Educational Society for the year.

A. R. Henry in account with the Seventh Day Adventist Educational Society:

CASH RECEIVED.

On shares	$2,560 00
" tuition	2,047 09
" rent	933 40
" book stand	848 25
" donations	703 27
" notes issued	500 00
" accounts	13,918 61
Total	$21,510 62

CASH PAID OUT.

On salaries	$3,644 00
" notes redeemed	8,050 00
" book stand	631 99
" interest	494 95
" boarding house	384 07
" expense	211 51
" fuel	209 72
" tuition	98 80
" printing	76 58
" taxes	71 35
" repairs	47 36
" library	17 50
" real estate	6 00
" museum	5 65
" insurance	2 33
" accounts	7,558 81
Total	$21,510 62

FINANCIAL STATEMENT.

RESOURCES.

Real estate	$45,290 50	
Library	1,356 50	
Museum	605 65	
Philosophical apparatus	1,150 00	
Due on accounts	418 95	
Boarding house	384 07	
Total		$49,205 67

LIABILITIES.

Due Publishing Association	$6,522 54	
Outstanding notes	2,002 50	
Total		$8,525 04
Present worth		40,680 63
Worth July 1, 1883		39,077 21
Gain		$1,603 42
Given on donations	$703 25	
Given on shares	2,560 00	
Total		$3,263 25
Less gain		1,603 42
Actual loss		$1,659 83

A. R. HENRY,
Treasurer.

2. The number of Professors and Instructors in the Institution is 10. For their names and positions you will please refer to the catalogue which accompanies this report.

3. The whole number of students enrolled during the year was 284.

4. For the courses of study pursued and the books of instruction used, I beg leave to refer you to the catalogue mentioned above.

Respectfully submitted,

W. H. LITTLEJOHN,
President.

DETROIT COLLEGE.

REPORT OF THE VICE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—In accordance with the requirements of law, I have the honor to submit the following report of Detroit College:

The Board of Trustees is constituted as follows:

President—Rev. J. G. Walshe, S. J.

Secretary—Rev. J. P. Frieden, S. J.

Treasurer—Rev. D. Niederkorn, S. J.

Rev. M. P. Dowling, S. J.

Rev. E. D. Kelly, S. J.

The members of the present Faculty are:

President—Rev. J. G. Walshe, S. J.

Vice President, Prefect of Studies, Professor of Higher Mathematics—Rev. J. P. Frieden, S. J.

Poetry, Professor of English and Latin Literature—Rev. M. P. Dowling, S. J.

Humanities, Professor of English and Latin Literature, and Elocution—Mr. B. Otting, S. J.

Professor of the Natural Sciences and Astronomy—Mr. J. A. Doyle, S. J.

Instructors in the Academic Department and in the German Language—Mr. J. J. Donoher, S. J.; Mr. T. F. Brown, S. J.; Mr. M. Eicher, S. J.

Instructors in the Commercial Department and in the French Language—Rev. E. D. Kelly, S. J.; Mr. J. F. Meuffels, S. J.

Elementary Department—Mr. M. A. Owens, S. J.

The Institution is now in the eighth year of its existence, and was incorporated under the general law of Michigan, April 27, 1881, with power to grant such literary honors, or confer such degrees as are usually conferred by similar colleges and institutions of learning in the United States. It is conducted by members of the Society of Jesus. Having for its object to impart a thoroughly Christian as well as liberal education, its methods of instruction combine religion and morality with literature and science. The professors and nearly all the students are members of the Catholic church. Pupils of all denominations, however, are admitted.

The course of studies embraces the doctrines and evidences of the Catholic religion, Logic, Metaphysics, Ethics, Astronomy, Natural Philosophy, Chemistry, Mathematics, Rhetoric, Composition, Elocution, History, Geography,

Book-keeping, Arithmetic, and the Latin, Greek, English, French, and German languages.

There are three Departments of Instruction, viz.: The Scientific, Collegiate, the Academic, and the Commercial. A Preparatory Department is added, for the advantage of boys who are not sufficiently advanced to enter the lowest class of the Academic or the Commercial course. The Academic is a three years' course preparatory to the Scientific-Collegiate, which latter is composed of four classes: Philosophy, Rhetoric, Poetry, and Humanities, answering respectively to the Senior, Junior, Sophomore, and Freshman classes of other institutions. Diplomas of graduation are granted to those students only of this department who have attended the lectures in the Sciences for at least three sessions, and who have passed a satisfactory examination in Chemistry, Natural Philosophy, and the Higher Mathematics, as well as in the ordinary branches of a collegiate course.

Those who complete the Scientific-Collegiate course receive the degree of Bachelor of Arts. They can afterwards obtain the degree of Master of Arts by devoting one year more to the study of Philosophy, or two years to any of the learned professions, provided the Board of Trustees be satisfied with their proficiency and their moral conduct.

The Commercial Department embraces all the branches of a sound English education. It is completed in four years, and is intended for such as wish to prepare themselves for commercial life.

The College has been steadily growing in favor with the community, as is evidenced by the constantly increasing attendance, and other marks of approval. During the academic year ending June 30, 1884, 217 students attended the classes of the College, 29 of whom were in the Scientific-Collegiate, 93 in the Academic, 59 in the Commercial, and 36 in the Preparatory Department.

The debating society, organized for the purpose of fostering a taste for eloquence and literature, has been doing excellent work. Its members meet once a week to exercise themselves in dramatic reading and extemporaneous debate. In addition to this, carefully prepared essays on historical subjects are read and discussed. During the past year special attention was given to American colonial history.

At the last annual commencement, held on Wednesday, June 25, 1884, seven young gentlemen, forming the second graduating class of the college, received the degree of Bachelor of Arts.

Respectfully submitted,

J. P. FRIEDEN, S. J.,

Vice-President.

HILLSDALE COLLEGE.

REPORT

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—Hillsdale College now enters upon its thirtieth year of academic existence. As at no time during this period has its undergraduate attendance fallen below five hundred students, the citizens of our commonwealth may reasonably hope that the period of probation common to all educational foundations has long passed, and that this seat of learning is established in the State in perpetuity. To secure this end an organized effort is now being made to increase the present endowment by the sum of $100,000. The present endowment, exclusive of buildings and appointments, is about $135,000.

FACULTY.

The government of the college remains substantially the same as last year, President Durgin, however, retiring by resignation in the middle of the academic year, leaving the faculty as follows:

Rev. Ransom Dunn, D. D., President *ad interim*, and Professor of Mental, Moral, and Political Philosophy.

Daniel Moses Fisk, A. M., Professor of Biology and Geology.

Rev. John Scott Copp, A. M., Alumni Professor of Logic, Belles-lettres, and German.

Arthur Edwin Haynes, M. Ph., Fowler Professor of Mathematics and Physics.

Alaxander Campbell Rideout, LL. D., Principal of Commercial Department and Professor of Political Economy.

Warren Allen Drake, A. M., Professor of Commercial Law, Book-keeping, and Penmanship.

George Balthazar Gardner, Professor of Painting and Drawing.

Melville Warren Chase, Professor of Instrumental Music.

Kingsbury Bachelder, A. M., Waldron Professor of the Latin Language and Literature.

James F. Parsons, A. M., Professor of the Greek Language and Literature.

Rev. Charles Densmore Dudley, A. M., Burr Professor of Systematic Theology.

Rev. Ashmun Thompson Salley, A. M., Professor of Sacred Literature.

Miss Cassie Alda Reamer, A. M., Principal of the Ladies' Department and Professor of French.

Alvah Graves, Instructor in Vocal Music.

Frank Smith, Instructor in Mathematics.
Clark Lincoln Herron, Tutor in Mathematics.
Alexander Hamilton Hiller, Tutor in Grammar.
Stephen Benjamin Harvey, Tutor in German.
Emma Louise Ellis, Assistant in Microscopy.
Cressy Livingston Wilbur, Tutor in Chemistry.
Carrie Gillespie Durgin, Tutor in Ancient History.
Adah M. Gardner, Assistant Instructor in Water Color, Crayon, and India Ink.
William Marvin Spears, Tutor in English Grammar.
Perry T. Benton, Instructor in Penmanship.
Hon. Oscar A. Janes, M. S., Secretary of the Board of Trustees, and Treasurer.

ATTENDANCE.

The attendance the past year has been slightly below that of the year previous, the total attendance of different students during the three terms constituting the school year being six hundred and seventy, distributed as follows:—

College proper	181
Theological	37
Preparatory and Normal	252
Music	89
Art	88
Commercial	173
Total	820
Deduct names of those in two departments	150
Corrected total	670

This attendance in a year of general financial depression is gratifying to all friends of learning.

ADMISSION.

The courses of preparatory study have been slightly modified, the requirements for admission to the Scientific Course having been increased by the addition of one year's studies. The Classical requirements remain the same and are: The common English branches; Latin Grammar, including Prosody; Cæsar, four books; Cicero, six orations; Virgil's Æneid, six books; Latin Prose Composition; Greek Grammar and Lessons; Xenophon's Anabasis, three books; Greek Prose Composition; Algebra, to Part III., Olney's Univ.; Plane Geometry; Composition and Rhetoric; United States History; Ancient History; Natural Philosophy, and Civil Government.

The requirements of the Philosophical Course are: The Common English branches; Latin Grammar; Cæsar, four books; Cicero, two orations; Latin Prose Composition; Algebra, to Part III., Olney's Univ.; Plane Geometry; Composition and Rhetoric; Civil Government; U. S. History; Ancient History, and Natural Philosophy. Instead of Latin here required, the student may take the Greek required for admission to the Freshman Year of the Classical Course.

Candidates for the Freshman Class in the Scientific course are examined in the common English branches; one year of Latin or Greek; one year of

French; Composition and Rhetoric; Civil Government; Natural Philosophy; United States History; Algebra, to Part III., Olney's Univ.; and Plane Geometry.

Normal School.

A more radical change has been made in the Normal course, which now requires four full years of study, as follows: English Grammar one year, Arithmetic two terms, Reading one year, Geography, Lectures on Teaching, Vocal Music, and Penmanship. This constitutes the first year. The second embraces, Composition and Rhetoric, United States History, Book-keeping, Free Hand Drawing, Sketching from Nature, Civil Government, and Lectures on Teaching, each one term; Reading and Algebra for the whole year. The third year gives instruction in Chemistry and History for two terms each; Botany, Physical Geography, Philosophy, English Literature, Plane Geometry, and Lectures on Teaching, one term each. The fourth year requires Zoölogy with Museum work, Advanced Rhetoric, Mental Philosophy, Human Physiology, Logic, Political Science, Geology, Principles of Teaching, and Moral Philosophy.

The Classical Course.

As the course of study for the Classical Department has not been made a part of this annual report it may be given here.

Freshman Year.

Fall Term.—Livy. Iliad. Solid Geometry. English Classics.
Winter Term.—De Amicitia. Greek Selections. Part III of Univ. Algebra.
Spring Term—Horace. Greek Selections. Trigonometry.

Sophomore Year.

Fall Term.—Demosthenes. General Geometry, elective in this course only with French. Chemistry.
Winter Term.—Tacitus, Germania and Agricola, or Juvenal. Calculus, elective with French, or Apologia. Organic Chemistry.
Spring Term.—Antigone. Calculus, elective with French, or Plato. Botany, with Laboratory work in preparing Herbaria, and Microscopy.

Junior Year.

German through the year. Mechanics, Physics, and Astronomy through the year. Comparative Zoölogy, with museum work in the fall. Human Anatomy, with dissections in the winter. Logic, Rhetoric, and English Literature begun.

Senior Year.

Fall Term.—Intellectual Philosophy. Logic. Mediæval History.
Winter Term.—Rhetoric. Political Economy. Speculative Philosophy. English Literature.
Spring Term.—Moral Philosophy. Butler's Analogy. Evidences of Christianity. Geology.

Ancient Languages.

The science of language has revolutionized former views respecting Greek and Latin. These languages, once spoken by the most cultivated classes of Greece and Rome, are not "dead," but are still living in and with the most refined modern languages. Out of Greek and Latin are made a large percentage of the Romance languages, half of the English language, and also nearly all scientific terms, while the Germanic family of languages are from the same original source. *Hence a student of science or of modern languages*

cannot be a broad and accurate scholar without a knowledge of Greek and Latin. The study of these languages is as *practical* as any study in scholarship. These facts are recognized in this College. The following are some of the special features of study and instruction in Greek and Latin:

1. Reading *at sight.*
2. Explanation of Greek and Latin words in English and in science.
3. Influence of Greek and Latin on grammar, rhetoric, and literature of English.
4. Origin and history of these languages, and their relation to the science of philology.
5. Free use of black-boards in the first years of the course.
6. Constant referring of students, in proportion to advancement, to collateral reading.
7. Special efforts to impress advanced students with the richness and value of these great masterpieces *as a literature.*
8. Repetition. No principle, word, or form once learned, is allowed to be forgotten. By frequent re-reading, even to the end of the course, an acquaintance with each author is retained.

Mathematics.

The course in mathematics is well calculated to lead the student up to vigorous, independent thought and accurate habits of reasoning. It includes a full year of the General Geometry and Calculus.

In the study of this interesting and very fruitful branch of mathematical science, during the first part of the year, the student is required to continue the study of the Loci of Equations as begun in Higher Algebra until he has acquired facility in discovering the locus from its equation, in producing and discussing, by both the rectilinear and polar methods, general and special equations of the right line and conic sections, as also some of the equations of the Higher Plane Curves and the Transformation of Coördinates. After this, he continues the development of Algebraic and Transcendental Functions by the aid of the Differential Calculus, and the applications of its principles to the investigation of loci, including the subjects of Maxima and Minima, Tangents, Normals, Singular Points, Curve Tracing, Radius of Curvature, Envelopes, etc., and finally makes a study of the Integral Calculus and its applications to the Rectification of Plane Curves, the Quadrature of Plane Surfaces and Surfaces of Revolution, the Cubature of Volumes of Revolution and the Deduction of the Equations of Curves.

Every class in the department of mathematics is required to recite *five hours* a week, making a total of one hundred and ninety-five (195) hours of class-room work during the school year.

Chemistry.

Lectures in Chemistry are given on five days of each week for two terms of the Sophomore year. A printed syllabus of the instruction relieves the student of the tedious labor of copying class-room dictation. Chemistry is taught both as a body of philosophy, of exceptional value as a disciplinary study, and as an investigation of phenomena embodying thought capable of being revealed by experiment. A full line of experiments is given in an amphitheater, from the resources of a good laboratory. Special prominence is given to the relations of Chemistry to Biology.

Biology.

The practical work in Biology, as now followed for the fourth term in the recently opened Harrington Laboratory, and first announced in the annual report of last year, has fulfilled the sanguine expectations of its founders. The interest manifested by the students in the work of comparative anatomical dissections and in microscopy is most gratifying. The department library has been increased by the purchase of many costly books of reference and illustration, that are in daily use by all botanical and anatomical students.

Museum.

The natural history collections are valued at $6,000, and are quite complete in Paleontology, Geology, Mineralogy, and Conchology.

The collections have already greatly outgrown the large room assigned to them at the rebuilding of the college, and a separate building of larger dimensions is a necessity.

Library.

The library has increased somewhat the past year and now numbers about eight thousand volumes. It is open five hours daily.

Religious Exercises.

All students are required to attend the chapel exercises daily, and public religious services on the Sabbath at the College Church, or at such other churches as may be selected by parents or students at the opening of the term.

The College Prayer Meeting, for Faculty and students, on Tuesday evening is largely attended, and is a source of much good and the scene of many conversions. It is held under the joint auspices of the Young Men's Christian Association and the Young Women's Association.

Expenses.

Scholarship rental, per term	from 50 cents to $1 00
Incidentals, per term (gentlemen)	5 00
Incidentals, per term (ladies)	3 00
Matriculation (paid but once)	3 00

Associate Schools.

The School of Music has had large prosperity the past year, and with the addition of Professor Graves to the corps of instruction, the department may hope for still further growth.

Professor Gardner has also lengthened the Art course, and is now assisted by his most efficient and talented daughter, lately Art Instructor in Doane College, Nebraska.

The Commercial School furnishes instruction in telegraphy and the studies usually taught in commercial schools.

The endowment of the Mark's Professorship in Theology has been nearly completed, and this much needed chair will be added to the department of Theology in the early future.

Endowments and Memorials.

A just pride is felt by the friends of Hillsdale College in the fact that so many special funds have been created to perpetuate the names and the zeal

of those who have been benefactors in gifts and services. The existence of such endowments and memorials is one of the best evidences of high rank in an institution, since it implies that confidence in continued prosperity which is necessary for the securing of large contributions. That this College has been so signally favored in its early history, is a source of great satisfaction to the Trustees and others who are immediately interested in its affairs. These funds are here given in the order of time in which they have been established:

THE BURR PROFESSORSHIP.—The late William Burr, for many years the able and honored editor of the *Morning Star*, so efficiently managed the affairs of the F. B. Printing Establishment, that, upon his death, the Board of Corporators applied $3,000 of its surplus as a basis of the "Burr Professorship." The fund was advanced to $10,000, and the chair of Pastoral and Systematic Theology was thus endowed.

THE MARKS PROFESSORSHIP.—In honor of Rev. David Marks, a zealous pioneer Free Baptist minister, another fund. of $10,000 was begun. The amount raised to date has been applied to the endowment of the chair of Ecclesiastical History. The F. B. Central Association is making efforts for the completion of the sum.

THE ALUMNI PROFESSORSHIP.—The Alumni Association of the College, at the quinquennial meeting in 1870, adopted a resolution to raise $10,000 for an Alumni Endowment. The work is still in progress, the fund now amounting to about $6,000. The chair of Logic and Belles-lettres has been named for this fund.

KNOWLTON HALL.—The Hon. and Rev. Ebenezer Knowlton, who filled many positions of trust in affairs of State and Church, was so highly esteemed by the friends of the College, that the General Conference of Free Baptists, held at Providence, R. I., in 1874, passed a resolution to raise $10,000 by popular subscription for a memorial in his honor among the College buildings. From this, the west building of the group was named "Knowlton Hall."

THE FOWLER PROFESSORSHIP.—Professor Spencer J. Fowler, who had been an assiduous worker in the College from an early day in its history, and had devoted his time, labor and means to the building of the Institution, laid down his burdens in August, 1875. In recognition of his services, which included the raising of $20,000 by personal efforts, the Trustees, at the meeting in June, 1876, attached his name to the chair of Mathematics.

GRIFFIN HALL.—The northwest building in the College group was named in honor of Charles P. Griffin, Esq., of Chicago, a zealous member of the Board of Trustees, who, in the financial stringency following the destruction by fire of the College buildings in 1874, took $2,600 of $10,000 stock sold by Prof. A. C. Rideout to raise funds to begin the erection of the west center building for the Commercial and Telegraphic Department, of which Mr. Griffin was one of the founders, and the first principal.

THE WALDRON PROFESSORSHIP.—Upon the death of Hon. Henry Waldron, who had been a liberal patron of the College, at various times, and had served as a Trustee from the earliest years of the Institution, a gift of $15,000 was made in his memory, by Mrs. Caroline M. Waldron, of Hillsdale, Rev. Charles N. Waldron, D. D., of Detroit, and Mrs. Mary E. Waterman, of Albany, N. Y., the widow, brother, and sister, respectively, of the deceased, and his immediate heirs. This bequest, it was stipulated, was to be applied to a "Waldron Professorship," the Trustees to elect the specific direction, and the Board, in June, 1881, designated the chair of Latin.

MARTIN PRIZE.—Mr. D. M. Martin, a member of the Class of 1881, has contributed a fund, the earnings of which are to be awarded, on each commencement day, to that member of the graduating class who shall have sustained the highest rank in the full course of Mathematics.

GYMNASIUM.

At a recent chapel meeting of the undergraduates, Faculty, and other friends interested in the erection of a college gymnasium, a subscription was opened by the generous gift of $500 by Mr. F. B. Dickerson, publisher, of Detroit, Mich.

The amount now subscribed is over $2,000, and the building is now under contract to be completed for use during the spring term of 1885. This gymnasium building with its equipments, it is expected will cost between three and four thousand dollars.

By vote of the Trustees it has been named the Dickerson Gymnasium of Hillsdale College.

Respectfully submitted in behalf of the Faculty.

HOPE COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—The report of Hope College, at Holland, for the year 1883–84 is as follows:

REMARKS.

Hope College was incorporated in 1866. It grew out of an unincorporated academy, which had been opened in 1855 and regularly organized in 1857. Even before this, for about four years, an ecclesiastical or parochial school had been fitting young men for Rutgers College, N. J., and thus for the gospel ministry. The Institution is under the care and patronage of the Reformed Church in America (denominational rather than "sectarian"), but, at the same time, is doing a good work for the cause of education in Michigan. It is laying foundations, moral and material, for much that will be noted in the future history of the State.

THE COUNCIL.

Rev. Charles Scott, D. D., President of the College, *ex-officio*.

Term Expiring 1885.

Isaac Cappo, Esq., Holland, Mich.
Rev. John S. Joralmon, Norwood Park, Ill.
Rev. Egbert Winter, Grand Rapids, Mich.

Term Expiring 1886.

J. C. Benham, M. D., Hudson, N. Y.
Rev. John H. Karsten, Holland, Mich.
Rev. Wm. Moerdyk, Dolton, Ill.

Term Expiring 1887.

Klaas Browmer, Esq., Grand Haven, Mich.
Rev. John W. Beardslee, D. D., Constantine, Mich.
Rev. Peter Moerdyk, Grand Rapids, Mich.

Term Expiring 1888.

Rev. Edward P. Livingston, D. D., Sioux Falls, Dakota.
Rev. N. H. Dosker, Kalamazoo, Mich.
Rev. Henry E. Dosker, Grand Haven, Mich.

Term Expiring 1889.

Rev. N. M. Steffens, D. D., Holland, Mich.
Rev. Peter Lepeltak, Overisel, Mich.
Rev. Dirk Broek, Holland, Mich.
President of the Board—Rev. N. M. Steffens.
Vice-President—Rev. J. W. Beardslee.
Secretary—Rev. Peter Moerdyk.
Treasurer, Isaac Cappon, Esq.
Executive Committee—Rev. Charles Scott, *ex-officio*; Rev. N. M. Steffens, Rev. P. Lepeltak, Rev. Dirk Broek, and Isaac Cappon, Esq.

The regular meetings of the Council are on the last Wednesday in April, and on the Tuesday preceding Commencement each year. The next Commencement will be on Wednesday, June 24, 1885.

ACADEMIC DEPARTMENT.

1. Faculty.

Rev. Charles Scott, D. D., President, Professor of Chemistry and Natural History.

Rev. T. Romeyn Beck, D. D., Secretary, Professor of Ancient Languages and Literature.

Cornelis Doesburg, A. M., Professor of Modern Languages and Literature, and of Art.

William A. Shields, A. M., Professor of English Language and Literature, and of Rhetoric.

Gerrit J. Kollen, A. M., Professor of Mathematics, Astronomy, and Natural Philosophy.

Rev. N. M. Steffens, A. M., Instructor in Moral Philosophy, and Christian Evidences.

Regular instruction is given in all the branches mentioned in the catalogue, and the course, being both classical and scientific, is thus made as complete as can well appertain to the A. B. degree.

2. Students.

Seniors, 2; Juniors, 6; Sophomores, 7; Freshmen, 9; total, 24. The degree of A. B. was conferred on 2; and that of A. M., in course, upon 8. The total number of graduates since 1866, has been 108. Great fidelity to work, and good deportment marked the year.

3. Course of Study.

Freshman Year.

Mathematics.—Wentworth's Geometry and Trigonometry.

LANGUAGE AND LITERATURE.

English.—Swinton's Studies in English Literature.
Latin.—Anthon's Cicero de Amicitia. Arnold's Latin Prose Composition.
Greek.—Owen's Xenophon's Cyropædia. Keep's Homer's Iliad. Arnold's Greek Prose Composition.
Modern.—Mulder's History of Dutch Literature. Jager's Derivation of Dutch Words. Essays.
Rhetoric.—Essays and Declamations.
History.—Anderson's New General History, First Part. An Atlas of Classical and Mediæval Geography.
Natural Science.—Hooker's New Physiology.
Sacred Literature.—Robinson's Harmony of the Gospels.

Sophomore Year.

Mathematics.—Olney's General Geometry and Calculus. Wentworth's Surveying and Navigation.

LANGUAGE AND LITERATURE.

English.—Kellogg's New History of English Literature.
Latin.—Tyler's Germania and Agricola (Tacitus). Latin Prose Composition (continued). Roman Antiquities.
Greek.—Johnson's Herodotus. Greek Prose Composition (Continued). Greek Antiquities.
Modern.—Duffet's French Grammar, 1st part. Worman's German Grammar. Deutsches Lesebuch, 1. Theil.
Rhetoric.—Essays, Speeches, and Declamations.
History.—Anderson's New General History, Second Part. Special Studies in History.
Natural Science.—Eliot and Storer's Manual of Chemistry (the Abridgement by Nichols).
Sacred Literature.—Robinson's Harmony of the Gospels.

Junior Year.

Mathematics Applied.—Olmsted's Natural Philosophy.

LANGUAGE AND LITERATURE.

Latin.—Anthon's Horace. Lectures on Roman Literature.
Greek.—Tyler's Plato's Apology and Crito. Woolsey's Æschylus Promotheus. Lectures on Greek Literature.
Modern.—Duffet's French Grammar, Second Part. Duffet's Extracts from French Literature. Worman's German Grammar (continued). Deutsches Lesebuch, 2 Theil.
Rhetoric.—Bascom's Philosophy of Rhetoric. Essays and Discussion. Delivery of Original Speeches.
History.—Anderson's New General History, Second Part (continued). Lectures on the Constitution and History of the United States.
Natural Science.—Chemistry (Analysis, etc.), one term. Wood's Botany, two terms.
Metaphysics.—Porter's Intellectual Science.
Sacred Literature.—Butler's Analogy.

Senior Year.

Mathematics.—Olmsted's Astronomy.

LANGUAGE AND LITERATURE.

Greek.—Plato's Phædo. Lectures on Greek Philosophy.
Modern.—Telemaque. Groszmann's Handbuch. Lectures on German Literature. Compositions in French and German.
Rhetoric.—Bascom's Aesthetics, with Essays. Delivery of Original Speeches.
Logic.—Thompson's Laws of Thought.
Ethics.—Wayland's Moral Science.
History.—Guizot's History of Civilization.
Natural Science.—Dana's Class-Book of Geology.
Political Science.—Wayland's Political Economy (Chapin). Lectures on Civil Government.
Sacred Literature.—Lectures on the Evidence of Christianity.

In the report of the "Bureau of Education" it is again stated that Hope College (as an exception to others in Michigan) has no Scientific Course. In one sense, this is true, but an examination of the above course will show that it embraces the same studies as some of our sister Colleges which have a distinct "Scientific Department" in their curriculum. The aim with us is to impart a "liberal education" and, as in the past, call the graduate an A. B.

PREPARATORY DEPARTMENT.

This also has a four years' course. The first year (D.) is given to English only. With the second (C.) begins Latin (or French instead) and Dutch.

With the third, are added Greek (or German instead) and higher Mathematics, etc. Those who complete the four years receive a diploma entitling them to admission into the Freshman class or fitting them for most of the occupations and professions of life. It is a peculiarity of Hope College, that, as a rule, those who enter the Preparatory Department intend to take the full course, and enter upon the study of the ancient or modern languages.

1. Faculty.

Rev. Charles Scott, D. D., President; English History, Physiology, and Zoölogy.

Rev. T. Romeyn Beck, D. D., Greek and Mythology (A class).

Cornelis Doesburg, A. M., Modern Languages and Drawing.

William A. Shields, A. M., Secretary; English Grammar and Rhetoric (A and B classes).

Gerrit J. Kollen, A. M., Mathematics, Natural Philosophy, and Didactics (A and B classes).

Henry Boers, A. M., Assistant Professor; Latin, Ancient History, Arithmetic, Reading, Penmanship, and Orthography.

John H. Kleinheksel, Jr., A. M., Assistant Professor; Greek, English Grammar, Book-keeping, Algebra, Botany, Civil Government, Geography, and United States History.

Rev. N. M. Steffens, A. M., in charge of Religious Instruction.

Rev. Thomas Walker Jones, A. M., in charge of same, with C and D classes.

Harman V. S. Peeke, in charge of Vocal Music.

2. Students.

A class, 10; B class, 16; C class, 31; D class, 38; Partial, 9; Total, 104. These, added to the 24 Academic students, make 128 in the institution, an increase of 37 in two years.

3. Course of Study.

First Year, "D" Class.

Reading Etc.—National Fourth Reader. Penmanship. Harrington's Graded Spelling Book, Part II.

Geography.—Harper's School Geography, Michigan edition.

Mathematics.—Davies' Intellectual Arithmetic. Olney's Practical Arithmetic.

LANGUAGE.

English.—Reed and Kellogg's Graded Lessons in English.

Rhetoric.—Written Essays through the year. Declamation of Selected Pieces.

History.—Barnes' United States.

Second Year, "C" Class.

Reading, Etc.—National Fifth Reader. Penmanship. Westlake's 3,000 Words. Dictation Exercises.

Mathematics.—Davies's Intellectual Arithmetic (continued). Davies's University Arithmetic.

Book-keeping.—Bryant and Stratton's Common School.

LANGUAGE.

English.—Reed and Kellogg's Higher Lessons in English.

Latin.—Bullion and Morris's Latin Lessons.

Modern.—Van Dalen's Dutch Grammar. Van Dalen's Dutch Exercises.

Rhetoric.—Essays and Declamations (continued).

History.—Smith's English History.

Special.—French will be introduced into the "C" year, in the place of Latin, if desired by the pupil; and German into the "B" year, in the place of Greek.

Third Year, "B" Class.

Reading, Etc.—Selections. Penmanship and Drawing.
Mathematics.—Olney's First Principles of Algebra. Mattison's High School Astronomy, with the use of globes.

LANGUAGE.

English.—Hart's Rhetoric. Analysis of Sentences.
Latin.—Allen and Greenough's Latin Grammar. Harkness' First Latin Book. Cæsar's Gallic War (Allen and Greenough).
Greek.—Goodwin's Greek Grammar. White's First Lessons in Greek.
Modern.—Van Dalen's Dutch Grammar and Exercises (continued).
Rhetoric.—Essays and Declamations (continued).
History.—Smith's Greek History (abridged).
Special.—Duffet's French Grammar, 1st Part. Worman's German Grammar. Worman's German Reader.

Fourth Year, "A" Class.

Penmanship or Drawing.—
Mathematics.—Olney's Complete Algebra. Wentworth's Geometry (in part). Natural Philosophy (Peck's Ganot, revised).

LANGUAGE.

English.—Parsing Milton's Paradise Lost (Sprague).
Latin.—Harkness' First Latin Book (continued). Arnold's Latin Prose Composition (begun). Greenough's Virgil's Æneid.
Greek.—Arnold's Greek Prose Composition. Crosby's Xenophon's Anabasis. Seeman's Mythology.
Modern.—Syntaxis (Dutch). Practical Exercises.
Rhetoric.—Hart's Rhetoric. Essays. Declamations (often original). "The Excelsiora," published by the class.
History.—Smith's Roman History (abridged).
Civil Government.—Young's Government Class Book.
Didactics.—Lectures on the Art of Teaching.
Special.—Duffet's French Grammar, 2d Part. Worman's German Grammar and Reader (continued).

NOTE.—Special attention is given, during the whole of the Preparatory Course, to the grammars of the languages studied. For those who pursue only English studies, or who design stopping at the end of the "A" year, the Faculty provide such additional branches as seem most expedient and profitable. Among them may be named Physiology, Botany, and Zoölogy.

FINANCES.

1. Contingent Fund.

Receipts:

Balance on hand	$0 03
Interest from funds	3,763 85
Students' fees	1,499 60
Donations	4,455 76
Other sources	163 95
Total	$9,883 19

Current Expenses:

Salaries	$7,616 40
Treasury and meetings of council	278 74
Grounds and buildings	299 91
Taxes	291 38
Other expenses	1,124 62
Balance on hand	272 14
Total	$9,883 19

2. Permanent Fund.

Held in trust by General Synod, (R. C. A.)	$39,009 59
Held and invested by council	19,702 64
Endowment notes	9,601 00
Endowment in printing office	9,000 00
Total	$77,313 23

No material increase has been made in the permanent fund during 1883–4, but since the beginning of the current year several thousands of dollars have been donated. An "Ebenezer" fund of $36,000 is under separate control, and yields but a small interest.

3. Library.

Received on this account	$154 31
Expended on this account	53 37
Balance on hand	$100 94

Bound books, 310, and pamphlets or periodicals, 1,254, have been added during the year. The total number of volumes is 6,235, besides some 7,000 pamphlets. Efforts are being made to secure an endowment and a building for the library. No charge is made for its use. Prof. G. J. Kollen is Librarian.

4. De Hope.

Belonging to the College is a weekly paper with the above title. The present circulation is about 1,600 copies. Rev. S. H. Karston is editor, but up to July 1, 1884, it was published under contract with Professors Doesburg and Kollen. On the campus is a good brick printing office, with a press run by steam, needed type, etc.

5. Real Estate.

The Council owns:

1. The campus, 18 acres, beautifully situated and in part finely shaded, with nine buildings, the largest of which is "Van Vlick Hall." These are improved as rapidly as the means on hand will allow. The chapel will hold an audience of 500, and is used as a church on the Sabbath.

2. Ninety acres of land within the city limits. Thirty of these are laid out into city lots, and about 2½ acres have been sold.

3. Six hundred and seventeen acres at Point Superior, on Black Lake. Some of this land is under cultivation. At this time it is difficult to estimate the value of the College properties.

INFORMATION.

The expenses at Hope College are comparatively light. The board, with furnished rooms, is never higher than $3 per week, and may be had as low as $2.50. The only fees are $5 per term for incidentals, and $5 at the time of graduation. Holland is a moral and orderly city of 3,000 inhabitants. The rules of government are simple but good order is maintained. If certain

appliances be lacking, yet the classes are comparatively small, and direct personal contact with the students, day by day, in teaching and otherwise, is most beneficial in its results.

THEOLOGY.

Until 1878 there was a Theological Department, which was suspended for lack of funds. This department has lately been restored. A theological professorship of $30,000 having been endowed, Rev. N. M. Steffens, D. D., was duly inaugurated as professor of Polemic and Didactic Theology, on the 4th of December, inst. Henceforth, then, the institution can report its three departments, as from 1866 to 1877, and will be more useful to the West.

CONCLUSION.

Hope College, like other denominational schools in Michigan, has its hard struggles against deficient resources, with a corps of earnest instructors, but poorly paid and with less sympathy and aid than is given to such institutions in the East. Yet it is my pleasure to report that various obstacles are being gradually overcome, and that more or less progress is marked year by year. No board of visitors has ever reported on the condition of the College, and it is very desirable that such report be made. Let me thank you for a personal visit, and for other tokens of interest and good will in our behalf.

Respectfully submitted,

CHARLES SCOTT,
President.

KALAMAZOO COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR,—As required by law, I herewith send the annual report of Kalamazoo College for the year ending June 18, 1884.

The following constituted the board of trustees:

Class I.—Term expires in 1884.—Rev. Samuel Haskell, D. D., Ann Arbor; Rev. Ezra J. Fish, D. D., Bronson; Rev. Kendall Brooks, D. D., Kalamazoo; Howard G. Colman, A. M., Kalamazoo; Rev. Jay Huntington, A. M., Howell; William L. Eaton, A. M., Kalamazoo; Daniel Putnam, A. M., Ypsilanti; Rev. Samuel Brooks, D. D., Kalamazoo; J. E. Howard, Esq., Detroit; Joseph W. French, Esq., Three Rivers; W. B. Reid, Esq., Jackson.

Class II.—Term expires in 1885.—I. S. Hamilton, M. D., Tecumseh; Chauncey Strong, A. M., Kalamazoo; Rev. George W. Harris, A. M., Battle Creek; Rev. Samuel Graves, D. D., Grand Rapids; Rev. Howard B. Taft, A. M., White Pigeon; Rev. Zelotes Grenell, D. D., Detroit; C. C. Bowen, Esq., Detroit; Hon. A. H. Wilkinson, A. M., Detroit; Rev. J. H. Dudley, Niles; Hon. William A. Moore, A. M., Detroit; Schuyler C. Grant, A. M., Detroit.

Class III.—Term expires in 1886.—Hon. Caleb Van Husan, Detroit; Rev. Asher E. Mather, Battle Creek; Rev. L. H. Trowbridge, A. M., Detroit; William Bair, Esq., Vicksburg; Rev. Theodore Nelson, Ph. M., St. Louis; Rev. Thomas M. Shanafelt, D. D., East Saginaw; Rev. John Donnelly, A. M., Coldwater; Edward Olney, LL. D., Ann Arbor; D. A. Waterman, Esq., Detroit; Hon. M. S. Crosby, A. M., Grand Rapids; Rev. C. R. Henderson, A. M., Detroit; Rev. J. D. Pulis, A. M., Detroit.

Rev. Henry Stanwood, a member of the board, as he had been continuously for twenty-six years, and its President from 1857 to 1864, died November 7, 1883, at the age of 85 years.

The members of the Faculty and other officers were as follows:

Rev. Kendall Brooks, D. D., President and Professor of Moral and Intellectual Philosophy.

Rev. Theodore Nelson, Ph. M., Acting President.

Rev. Samuel Brooks, D. D., Professor of the Latin Language and Literature.

Jabez Montgomery, Ph. D, Professor of the Natural Sciences.

Alexander Hadlock, Ph. M., Professor of Mathematics.

Frank D. Haskell, A. M., Professor of the Greek Language and Literature.

Miss Marian A. Chase, Instructor in History.

Miss Lena A. Beerman, Instructor in Latin.

Miss Mary A. Sawtelle, Instructor in French.
Prof. Z. S. Harrison, Instructor in Music.
Miss Helen M. Brooks, Instructor in Painting and Drawing.
Prof. Samuel Brooks, Librarian.
Rev. J. S. Boyden, Financial Secretary.
Mr. S. G. St. John, Janitor.

The President of the College, after an uninterrupted service of fifteen years, had leave of absence from November 16 till the close of the year, and his place was filled during this interval by Rev. Theodore Nelson, a graduate of the College of the class of 1872.

The number of students for the year as shown in the catalogue was 204; of whom 57 were in the College proper and 147 in the preparatory department.

There are three courses of instruction, each extending through four years of preparatory work and four years of College study, designated as follows:

1. The Classical Course.
2. The Latin and Scientific Course.
3. The Scientific Course.

The distribution of studies and the text-books in the several departments are as follows:

College Courses.

I.—THE CLASSICAL COURSE.

[For the Degree of Bachelor of Arts.]

Freshman Year.

First Term.—1. *Greek.*—Boise's Homer's Iliad. 2. *Latin.*—Livy. 3. *Mathematics.*—Olney's University Algebra, Part III.

Second Term.—1. *Greek.*—The Iliad, Fernald's Greek Historians. 2. *Latin.*—Livy. 3. *Mathematics.*—Olney's University Geometry, Part III.

Third Term.—1. *Greek.*—Fernald's Greek Historians. 2. *Latin.*—The Odes of Horace. 3. *Mathematics.*—Olney's Plane and Spherical Trigonometry.

Sophomore Year.

First Term.—1. *Latin.*—The Satires and Epistles of Horace. 2. *Mathematics.*—Olney's General Geometry. 3. *French.*—Keetels's Collegiate French Course.

Second Term.—1. *Greek.*—The Œdipus Tyrannus of Sophocles. 2. *Chemistry.*—Barker's. 3. *French.*—Keetels's Collegiate French Course.

Third Term.—1. *Mathematics.*—Olney's Calculus. 2. *Geology.*—Dana's Text Book. 3. *French.*—Some author to be read.

Junior Year.

First Term.—1. *Greek.*—The Prometheus of Æschylus. 2. *Rhetoric.*—Hill's Science of Rhetoric. 3. *German.*—Whitney's Grammar and Reader.

Second Term.—1. *Latin.*—The Germania and Agricola of Tacitus. 2. *Mechanics.*—Olmsted's College Philosophy. 3. *German.*—Whitney's Grammar and Reader.

Third Term.—1. *Physics.*—Olmsted's College Philosophy. 2. *Modern History.* 3. *German.*—Some author to be read.

Senior Year.

First Term.—1. *Intellectual Philosophy.*—Porter. 2. *Astronomy.*—Loomis's Treatise. 3. *Greek.*—Demosthenes on the Crown.

Second Term.—1. *Logic.*—Atwater. 2. *Moral Philosophy.* 3. *Natural Theology.*—Diman's Theistic Argument.

Third Term.—1. *Political Economy.* 2. *Evidences of Christianity.*—Hopkins. 3. *Latin.*—Frieze's Quintilian.

During the Freshman Year there is a weekly exercise in Rhetoric and each student declaims twice each term.

During the Sophomore Year the declamations are continued, and each student presents an essay twice in each term.

During the Junior and Senior Years the essays are continued, and each student delivers two original orations each term.

II.—THE LATIN-SCIENTIFIC COURSE.

[For the Degree of Bachelor of Philosophy.]

Freshman Year.

First Term.—1. *Latin.*—Livy. 2. *Mathematics.*—Olney's University Algebra, Part III. 3. *Literature.*—Tyler and Morley's English Literature.

Second Term.—1. *Latin.*—Livy. 2. *Mathematics.*—Olney's University Geometry, Part III. 3. *Literature.*—Tyler and Morley's English Literature.

Third Term.—1. *Latin.*—The Odes of Horace. 2. *Mathematics.*—Olney's Plane and Spherical Trigonometry. 3. *Literature.*—American Literature.

Sophomore Year.

First Term.—1. *Latin.*—The Satires and Epistles of Horace. 2. *Mathematics.*—Olney's General Geometry. 3. *French.*—Some author to be read.

Second Term.—1. *Chemistry.*—Barker's. 2 *The Constitution of the United States.* 3. *French.*—Some author to be read.

Third Term.—1. *Mathematics.*—Olney's Calculus. 2. *Geology.*—Dana's Text Book. 3. *French.*—Some author to be read.

Junior Year.

First Term.—1. *Rhetoric.*—Hill's Science of Rhetoric. 2. *German.*—Whitney's Grammar and Reader. 3. *Modern History.*

Second Term.—1. *Latin.*—The Germania and Agricola of Tacitus. 2. *Mechanics.*—Olmsted's College Philosophy. 3. *German.*—Whitney's Grammar and Reader.

Third Term.—1. *Physics.*—Olmsted's College Philosophy. 2. *Modern History.* 3. *German.*—Some author to be read.

Senior Year.

First Term.—1. *Intellectual Philosophy.*—Porter. 2. *Astronomy.*—Loomis's Treatise 3. *Æsthetics.*—Bascom's Science of Beauty.

Second Term.—1. *Logic.*—Atwater. 2. *Moral Philosophy.* 3. *Natural Theology.*—Diman's Theistic Argument.

Third Term.—1. *Political Economy.* 2. *Evidences of Christianity.*—Hopkins. 3. *Latin.*—Frieze's Quintilian.

III.—THE SCIENTIFIC COURSE.

[For the Degree of Bachelor of Science.]

Freshman Year.

First Term.—1. *Mathematics.*—Olney's University Algebra, Part III. 2. *Literature.*—Tyler and Morley's English Literature. 3. *Zoölogy.*—Orton's Comparative Zoölogy.

Second Term.—1. *Mathematics.*—Olney's University Geometry, Part III. 2. *Literature.*—Tyler and Morley's English Literature. 3. *Botany.*—Gray's Structural Botany.

Third Term.—1. *Mathematics.*—Olney's Plane and Spherical Trigonometry. 2. *Literature.*—American Literature. 3. *Botany.*—Gray's Structural Botany.

Sophomore Year.

First Term.—1. *Mathematics.*—Olney's General Geometry. 2. *French.*—Some author to be read. 3. *Surveying.*

Second Term.—1. *Chemistry.*—Barker. 2. *The Constitution of the United States.* 3. *French.*—Some author to be read.

Third Term.—1. *Mathematics.*—Olney's Calculus. 2. *Geology.*—Dana's Text Book. 3. *French.*—Some author to be read.

Junior Year.

First Term.—1. *Rhetoric.*—Hill's Science of Rhetoric. 2. *Modern History.* 3. *German.*—Whitney's Grammar and Reader.

Second Term.—1. *Mechanics.*—Olmsted's College Philosophy. 2. *Modern History.* 3. *German.*—Whitney's Grammar and Reader.

Third Term.—1. *Physics.*—Olmsted's College Philosophy. 2. *Modern History.* 3. *German.*—Some author to be read.

Senior Year.

First Term.—1. *Intellectual Philosophy.*—Porter. 2. *Astronomy.*—Loomis's Treatise. 3. *Æsthetics.*—Bascom.

Second Term.—1. *Logic.*—Atwater. 2. *Moral Philosophy.* 3. *Natural Theology.*—Diman's Theistic Argument.

Third Term.—1. *Political Economy.* 2. *Evidences of Christianity.*—Hopkins. 3. *History of Philosophy.*—Bowen.

Rhetorical exercises throughout the four years are the same for all the students as for those in the classical course.

In most of the studies, the text-books are supplemented by lectures.

Preparatory Department.

I.—CLASSICAL COURSE.

First Year.

First Term.—1. Harkness' Latin Grammar and Jones's Latin Lessons. 2. History of the United States. 3. Swinton's English Grammar.

Second Term.—1. Latin Grammar and Lessons. 2. History of the United States. 3. Swinton's English Grammar.

Third Term.—1. Latin Grammar and Lessons. 2. Dunglison's School Physiology. 3. Physical Geography.

Second Year.

First Term.—1. Cæsar's Commentaries. 2. Olney's Introductory Algebra. 3. Swinton's Outlines of History.

Second Term.—1. Cæsar, and Jones's Latin Prose Composition. 2. Olney's Introductory Algebra. 3. Swinton's Outlines of History.

Third Term.—1. Cæsar, and Jones's Latin Prose Composition. 2. Olney's Complete Algebra. 3. Swinton's Outlines of History.

Third Year.

First Term.—1. Cicero's Orations. 2. Goodwin's Greek Grammar and Boise's Greek Lessons. 3. Olney's Complete Algebra.

Second Term.—1. Cicero's Oration. 2. Greek Grammar and Lessons. 3. Olney's Complete Algebra.

Third Term.—1. Virgil's Æneid and Latin Prosody. 2. Xenophon's Anabasis and Greek Prose Composition. 3. D. J. Hill's Elements of Rhetoric.

Fourth Year.

First Term.—1. Virgil's Æneid and Roman History. 2. Xenophon's Anabasis and Greek Prose Composition. 3. Olney's Geometry, Plane.

Second Term.—1. Virgil's Æneid and Roman History. 2. Xenophon's Anabasis and Grecian History. 3. Olney's Geometry, Plane and Solid.

Third Term.—1. Cicero De Senectute and De Amicitia. 2. Homer's Iliad, Book 1. 3. Olney's Geometry, Solid and Spherical.

II.—LATIN-SCIENTIFIC COURSE.

[The First and Second Years are the same as in the Classical Course.]

Third Year.

First Term.—1. Cicero's Orations. 2. Olney's Complete Algebra. 3. Natural Philosophy.

Second Term.—Cicero's Orations. 2. Olney's Complete Algebra. 3. Natural Philosophy.

Third Term.—1. Virgil's Æneid and Latin Prosody. 2. D. J. Hill's Elements of Rhetoric. 3. Steele's Geology.

Fourth Year.

First Term.—1. Virgil's Æneid and Roman History. 2. Olney's Geometry, Plane 3. Keetels's New Method of Learning French.

Second Term.—1. Virgil's Æneid and Roman History. 2. Olney's Geometry, Plane and Solid. 3. Keetels's New Method of Learning French.

Third Term.—1. Cicero De Senectute and De Amicitia. 2. Olney's Geometry, Solid and Spherical. 3. French—some author to be read.

III.—THE SCIENTIFIC COURSE.

First Year.

First Term.—1. Swinton's English Grammar. 2. History of the United States. 3. Olney's Practical Arithmetic.
Second Term.—1. Swinton's English Grammar. 2. History of the United States. 3. Olney's Practical Arithmetic.
Third Term.—1. English Analysis. 2. Dunglison's Physiology. 3. Physical Geography.

Second Year.

First Term.—1. Olney's Introductory Algebra. 2. Swinton's Outlines of History. 3. Whitney's Essentials of English Grammar.
Second Term.—1. Olney's Introductory Algebra. 2. Swinton's Outlines of History. 3. Nichol's Book-Keeping.
Third Term.—1. Olney's Complete Algebra. 2. Swinton's Outlines of History. 3. English Analysis.

Third Year.

First Term.—1. Olney's Complete Algebra. 2. Natural Philosophy. 3. Olney's Science of Arithmetic.
Second Term.—1. Olney's Complete Algebra. 2. Natural Philosophy. 3. Olney's Science of Arithmetic.
Third Term.—1. Gray's Lessons in Botany. 2. D. J. Hill's Elements of Rhetoric. 3. Steele's Geology.

Fourth Year.

First Term.—1. Olney's Geometry, Plane. 2. Cooley's Chemistry. 3. Keetels's New Method of Learning French.
Second Term.—1. Olney's Geometry, Plane and Solid. 2. Gillett & Rolfe's Astronomy. 3. Keetels's New Method of Learning French.
Third Term.—1. Olney's Geometry, Solid and Spherical. 2. French—Some author to be read. 3. Young's Government Class Book.

All the preparatory students have exercises at least once a week in reading, spelling, and the formation of English sentences.

Students, whose previous studies in English enable them to do so, may take the Latin of the first two years in one year, and so complete the preparation for the Freshman year in college in three years. But this is recommended only to those who have maturity of mind and are thoroughly grounded in the principles of grammar.

The endowment funds of the College amount to $55,437.11. The property of the College at a low estimate is $100,000. At their last annual meeting in June the trustees resolved to seek an addition of $50,000 to the endowment. It is hoped that the next annual report will announce the fulfillment of this purpose.

Respectfully submitted.

KENDALL BROOKS,
President.

REPORT OF THE VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR,—As chairman of the committee appointed by you to visit Kalamazoo College, I went to the institution last March, and spent two days inspecting the classes and other exercises. I did not meet the other members of the committee, and have received no report of any visits made by them, and so can speak only for myself.

I found the college under the administration of Rev. Theodore Nelson as acting President—President Brooks having a year's leave of absence on account of ill health. The position of acting President is always a trying one, and it is due to Mr. Nelson to state that the duties of his office were filled to the entire acceptation of faculty and students. All departments of the college seemed to work effectively and in complete harmony with each other: the faculty were diligent and painstaking, and the students cheerful and industrious. I attended classes in Political Science, Evidences of Christianity, Geometry, Algebra, Natural Philosophy, Physiology, Latin, Greek, and English. As my visit was unheralded, I saw the classes in their every day working order, and in my judgment they were doing good work.

A main defect of the institution is the lack of apparatus in the department of Physical Sciences; but this comes from financial reasons, and can easily be remedied if some friend of the college with means at his command can be led to see the need, and be given the inclination to supply it.

Respectfully yours,

AUSTIN GEORGE.

OLIVET COLLEGE.

REPORT OF THE PRESIDENT.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR—In behalf of the trustees of Olivet College, I present the following annual report for the year ending June 19, 1884.

The corporation consists of a board of trustees, twenty-five in number, four of whom are elected annually for a period of six years. The President of the College is *ex officio* President of the board. The following are the present members of the corporation:

Rev. Horatio Q. Butterfield, D. D., President.

Term expires 1885.—Rev. Walcott B. Williams, Charlotte; Rev. Leroy Warren, Lansing; Rev. Abram B. Allen, Springwells; Rev. A. Hastings Ross, D. D., Port Huron.

Term expires 1886.—Rev. Joseph L. Daniels, Olivet; Henry Fralick, Esq., Grand Rapids; Hon. Jacob S. Farrand, Detroit; Rev. George D. Baker, D. D., Detroit.

Term expires 1887. Hon. James McMillan, Detroit; Rev. Henry H. Northrop, Flint; Frank S. Belcher, Esq., Charlotte; Rev. Job Pierson, D. D., Ionia.

Term expire 1888.—David Whitney, Jr., Esq., Detroit; Hon. Sullivan M. Cutcheon, Detroit; Hon. Oramel Hosford, Olivet; Hon Asa K. Warren, Olivet.

Term expires 1889. Rev. James L. Patton, Greenville; Rev. Philo R. Hurd, D. D., Detroit; Harvey J. Hollister, Esq., Grand Rapids; Hon. Alanson Sheley, Detroit.

Term expires 1890.—Homer O. Hitchcock, M. D., Kalamazoo; Fitz L. Reed, Esq., Olivet; Philo Parsons, Esq., Detroit; Dexter M. Ferry, Esq., Detroit.

The immediate care of the College is in the hands of the following officers:

Executive Committee.—H. Q. Butterfield, Chairman; A. K. Warren, J. L. Daniels, O. Hosford, F. L. Reed.

Library Committee.—H. Q. Butterfield, J. L. Daniels.

Secretary and Assistant Treasurer.—George W. Keyes.

Treasurer.—Henry Fralick.

Financial Agent.—Rev. W. B. Williams.

FACULTY.

Rev. Horatio Q. Butterfield, D. D., President, and Drury Professor of Mental and Moral Philosophy.

Rev. Henry M. Goodwin, D. D., Professor of English Literature and Art.

Rev. Oramel Hosford, A. M., Stone Professor of Astronomy and Natural Philosophy, and Instructor in Mathematics.

Rev. Joseph L. Daniels, A. M., Parsons Professor of the Greek Language and Literature, and Instructor in German.

Rev. Joseph Estabrook, A. M., Principal of the Normal Department, and Professor of Logic.

Stewart Montgomery, A. M., Professor of Natural Science.

Rev. Jean Frederic Loba, A. M., Professor of Rhetoric, and Instructor in French.

Allen W. Gould, A. B., Rutan Professor of the Latin Language and Literature.

Charles H. Johnson, Professor of Music.

Hamilton King, A.M., Principal of Preparatory Department.

George N. Ellis, A.M., Instructor in Greek and Latin.

Mrs. Abba C. Hamilton, Principal of the Ladies' Department.

Miss Cornelia P. Dwight, Instructor in Mathematics and History.

Miss Fannie Spooner, Instructor in Painting and Drawing.

Miss A. B. Shepard, Instructor in Vocal and Instrumental Music.

James Fairman, A.M., Lecturer on Art.

Joseph L. Daniels, A.M., Librarian.

Summary of Students for 1883.

College:		
Classical Course	39	
Scientific Course	18	
Ladies' Course	39	
		96
Preparatory:		
Classical Course	55	
Ladies' Course	26	
		81
Normal Course		82
English and Elective		46
Conservatory of Music		55
		360
Deduct for names inserted twice		36
Total		324

The following is the outline of the various

Courses of Study.

COLLEGE.

CLASSICAL COURSE.

Freshman Year.

First Term.—Livy. History of Rome. Homer's Iliad and Odyssey. Greek Prose Composition. Greek Grammar. Algebra completed.

Second Term.—Terence. Latin Prose Composition. History of Greece. Herodotus and Thucydides. Geometry completed.

Third Term.—Horace.—Odes. Memorabilia of Socrates. History of Greece. Trigonometry.

Sophomore Year.

First Term—Horace—Epistles, Satires, and Ars Poetica. Sophocles—Œdipus Tyrannus. Analytical Geometry—*Loomis.*

Second Term.—Tacitus. Juvenal. Pliny—Letters. Plato. Rhetoric.

Third Term.—Plautus. Selections from Lucretius and Catullus. Demosthenes—De Corona. Surveying—*Loomis*, or Botany.

Junior Year.

First Term.—German—*Whitney's Grammar.* French. Logic. Chemistry, with Lectures.

Second Term.—German. French. Anatomy and Physiology. Natural Philosophy—Mechanics and Hydrostatics—*Snell's Olmsted.*

Third Term.—German, or Latin, or Greek. French. Geology, with Lectures. Natural Philosophy—Pneumatics and Optics.

Senior Year.

First Term.—English Literature. Mental Philosophy. Astronomy.—*Snell's Olmsted.*

Second Term.—Mental Philosopy. Guizot's History of Civilization in Europe. Political Economy. English Literature.

Third Term.—Moral Philosophy. Lieber on Civil Liberty, or Art. Evidences of Christianity, with Lectures.

Lessons in the English Bible or Greek Testament, compositions, declamations, and extemporaneous discussions, weekly, throughout the course.

Option between two or more studies is allowed at various points in the course. During Junior Year, the student may select three of the four studies specified, but must complete each study begun.

Candidates for admission to the Freshman class who have pursued their preparatory studies elsewhere are examined in the following books and subjects, or their equivalents:

Latin Grammar, including Prosody.
Cæsar, two books.
Cicero, seven orations.
Virgil, three Bucolics and six books of the Æneid.
Arnold's Latin Prose Composition, to the Passive Voice.
Smith's Smaller History of Greece, and of Rome.
Greek Grammar, including Prosody.
Xenophon, Anabasis, three books.
Homer,* Iliad, two books.
Higher Arithmetic, including the Metric System.
Loomis's Algebra, through Quadratic Equations.
Loomis's Geometry, four books.
English Grammar and Geography.

All candidates for advanced standing in this and the following courses are examined, in addition to the preparatory studies, in those already pursued by the class which they propose to enter.

SCIENTIFIC COURSE.

Freshman Year.

First Term.—Algebra completed. Mediæval History. French Language, Free-hand Drawing.

Second Term.—Geometry completed. French. Modern History.

Third Term.—Trigonometry—*Loomis.* French. Botany—*Gray.*

Sophomore Year.

First Term.—Analytical Geometry—*Loomis.* Chemistry, with lectures. Physical Geography.

Second Term.—Chemistry, with lectures. Rhetoric. Mineralogy, or Calculus.

Third Term.—Art. Surveying—*Loomis.* Constitutional History.

Junior Year.

First Term.—German—*Whitney's Grammar.* Perspective. Logic. Zoölogy.

*In place of the Homer, the last six books of Virgil's Æneid or 2,000 lines of Ovid will be accepted.

Second Term.—Natural Philosophy—Mechanics and Hydrostatics—*Snell's Olmsted.* German. Anatomy and Physiology.
Third Term.—Natural Philosophy—Pneumatics and Optics. German. Geology.

Senior Year.

First Term.—English Literature. Astronomy—*Snell's Olmsted.* Mental Philosophy.
Second Term.—English Literature. Mental Philosophy. Guizot's History of Civilization in Europe. Political Economy.
Third Term.—Evidences of Christianity, with Lectures. Moral Philosophy. Lieber on civil Liberty.
The Latin or Greek of the College Course will be accepted in lieu of the Mathematics in the above course beyond the Freshman year.
Lessons in the Bible, compositions, declamations, and extemporaneous discussions, weekly, through the course.
Candidates for admission to the Freshman class of this department must sustain a satisfactory examination in English Grammar and Analysis, Arithmetic, including the Metric System, Algebra through Quadratic Equations, four books of Loomis's Geometry, History of the United States, and Geography.

LADIES' COURSE.

First Year.

First Term.—Cicero's Orations—*Chase and Stuart.* Algebra completed. Physical Geography.
Second Term.—Cicero's Orations. Modern History. Geometry completed.
Third Term.—Cicero's Orations. Constitutional History, or Trigonometry—*Loomis.* Latin Prose Composition.

Second Year.

First Term.—French Language. Analytical Geometry, or Chemistry, or History of Rome. Virgil's Æneid. Latin Prosody.
Second Term.—Chemistry, or Calculus, or Mineralogy. French. Virgil's Æneid.
Third Term—French. Botany. Virgil's Æneid.

Third Year.

First Term.—German—*Whitney's Grammar.* Zoölogy. Logic.
Second Term.—German. Rhetoric. Natural Philosophy—Mechanics, or Anatomy and Physology, or Greek History.
Third Term.—Natural Philosophy—Pneumatics and Optics. German. Geology.

Fourth Year.

First Term.—English Literature. Mental Philosophy. Astronomy.
Second Term.—Mental Philosophy. Guizot's History of Civilization in Europe. Political Economy. English Literature.
Third Term.—Moral Philosophy. Evidences of Christianity, with Lectures. Lieber on Civil Liberty, or Art.
For some of the above studies students may, at the option of the Faculty, substitute Music or advanced studies in the other courses.
Lessons in the Bible and exercises in English composition weekly during the course.
Candidates for admission to the first year of this course are examined in English Grammar and Analysis, Higher Arithmetic, including the Metric System, Algebra through Quadratic Equations, four books of Loomis's Geometry, Latin Grammar, Latin Reader, Cæsar, History of the United States, and Geography.

Preparatory Department.

CLASSICAL COURSE.

Junior Year.

First Term.—Latin Grammar continued through the course. Latin Lessons. Arithmetic—*Olney.* English Grammar and Analysis.
Second Term.—Latin Lessons and Cæsar. Arithmetic. English Grammar and Analysis. Book-keeping.
Third Term.—Cæsar.—*Chase and Stuart.* History of the United States. Civil Government.

Middle Year.

First Term.—Cicero's Orations.—*Chase and Stuart.* Greek Grammar, continued through the course.—*Goodwin.* Greek Lessons.—*White.* History of Rome.
Second Term.—Cicero's Orations. Greek Lessons and Anabasis. History of Greece.
Third Term.—Cicero's Orations. Latin Prose Composition. Xenophon's Anabasis.

Senior Year.

First Term.—Virgil's Æneid. Latin Prosody. Algebra.—*Loomis.* Greek Prose Composition. Xenophon's Anabasis.
Second Term.—Virgil's Æneid. Algebra through Quadratic Equations. Homer's Iliad. Xenophon's Anabasis.
Third Term.—Virgil's Æneid. Homer's Iliad. Geometry.—*Loomis.*
Lessons in the Bible and Exercises in Elocution and Composition throughout the course.
The course of study and instruction defined above is designed thoroughly to prepare students for admission to the College department of this Institution, or to any other College in the country.
All candidates for advanced standing in this course are examined in the studies already pursued by the class they propose to enter.
Classes commencing the study of Latin are formed twice in each year—at the beginning of the Fall and Winter Terms.

NORMAL DEPARTMENT.

ELEMENTARY COURSE. (Two Years.)

First Year.

First Term.—English Grammar. Arithmetic. Reading and Orthography. Algebra. Drawing and Vocal Music.
Second Term.—Algebra. English Grammar. Book-keeping. Geography and Penmanship.
Third Term.—United States History. Elementary Methods. Civil Government.

Second Year.

First Term.—Algebra. Mediæval History. Physiology.
Second Term.—Principles of Education and Methods. Zoölogy. Natural Philosophy.
Third Term.—Elements of Mental Philosophy and School Management. Geometry.—Plane. Botany.

FULL ENGLISH COURSE. (Three Years.)

One year's study in addition to the requirements of the Elementary Course.
First Term.—English Literature. Mental Philosophy. Logic.
Second Term.—Geometry. Rhetoric. Chemistry.
Third Term.—Advanced Professional Instruction.—Lectures. Geology. Moral Science.

LANGUAGE COURSES. (Four Years.)

First Year.

First Term.—Latin. English Grammar. Arithmetic. Vocal Music and Drawing.
Second Term.—Latin. Arithmetic. English Grammar. Geography.
Third Term.—Latin. United States History. Civil Government.
The first year of the Modern Language Course will be identical with first year of the Elementary Course.

Second Year.

First Term.—Latin or German. Greek or Mediæval History. Algebra.
Second Term.—Latin or German. Greek or Algebra. Book-keeping.
Third Term.—Latin or German. Greek. Vocal Music. Geometry.

Third Year.

First Term.—Latin or Geometry. Greek or French. English Literature.
Second Term.—Latin or Rhetoric. Greek or French. Natural Philosophy.
Third Term.—Latin or Perspective Drawing. Greek or French. Botany.

Fourth Year.

First Term.—Latin or Physiology. Greek or Perspective Drawing. Mental Philosophy.

Second Term.—Political Economy. Chemistry. Moral Philosophy and Logic.

Third Term.—Evidences of Christianity. Essays on Educational Topics. Advanced Professional Instruction.

Lessons in the Bible, Composition, Declamations, and Discussions weekly, throughout all the courses.

The professional instruction in Reading and Elocution, and the reviews in the common branches, will be conducted by the Principal of the Normal Department. The advanced studies will be pursued under the instruction of the College Professors in their respective departments.

A class will be organized in the Fall and Spring terms for the benefit of those about to teach. It will last half the term.

Those who complete the Elementary Course will receive a certificate signed by the President of the College and the Principal of the Normal Department.

Those who complete any of the full courses will receive a Normal Diploma.

A Summer Normal Class is held each year, beginning the first week in July and continuing five weeks. Special attention is given to school organization and management, methods of teaching, general principles of education, and preparation for county examinations. There is an opportunity for review of the common branches, and for pursuing special studies. The Principal of the Normal Department is assisted by members of the Faculty.

Art Department.

The aim here is, first, to develop and cultivate a taste for the beautiful, not only by personal acquaintance with fine art, but also by means of lectures upon its theories and principles; secondly, to add that discipline of the mind which is the result of a direct and thorough study of form and color in nature; thirdly, to give Art that place in the symmetrical development of the student's mind which it now occupies in the cultured world.

For practical work an Art Room has been furnished with easels, casts, patterns, and all necessary materials

A Course of Art has been arranged, and may be had upon application. This course can be completed in connection with a four-years' course of College study; if pupils make Art a specialty, it will require but two years. The latest and best methods of instruction will be followed, and the drill in Model and Object Drawing and Perspective will be thorough.

One term of Free-Hand and of Perspective Drawing will be given to every student without extra charge. The prices for a term of twenty-four lessons will be as follows:

Pencil Drawing	$4 00
Perspective	4 00
Charcoal Drawing with use of casts	6 00
Crayon Drawing	12 00
China Painting	12 00
Water Colors and Sepia	12 00
Oil Painting	12 00

Michigan Conservatory of Music.

This Conservatory offers the finest advantages for the study of Music—Instrumental, Vocal, and Theoretical—either exclusively or with other studies. The methods of instruction are similar to those of the best Conservatories in this country and Europe. The course of study is comprehensive and thorough, being arranged with a view to maintain a high standard of musical taste. The

aim of the management is to secure a complete mastery of all branches which are undertaken by the student, rather than to give a superficial knowledge of a few pieces. A real education of the musical faculties is accomplished, rather than a training in styles which are to be blindly imitated by the pupil.

Diplomas are awarded to those who complete the course and attain the standard for graduation on recommendation of the College Faculty. At least three years' study of Theory will be required for graduation. Those making Theory a specialty will be required to pursue the study four years.

Tuition and Other Expenses.

Piano, Organ, or Voice Culture.

Classes of two pupils, twenty-two hour lessons, a term, each pupil	$12 00
Classes of three pupils, twenty-two hour lessons, a term, each pupil	10 00
Private instruction, twenty-two hour lessons, a term	18 00
Private instruction, eleven hour lessons, a term	10 00
Private instructions, twenty-two half-hour lessons, a term	12 00
Private instruction, eleven half-hour lessons, a term	6 00

Theory of Music, Notation, Harmony, Etc.

In classes, twenty-two lessons, a term	$5 00
Use of piano for one hour a day, a term	3 00
Use of cabinet organ for one hour a day, a term	2 50
Use of pipe organ for one hour a day, a term	3 00
Blowing pipe organ, each hour	10

Degrees and Diplomas.

The degree of Bachelor of Arts is conferred upon the graduates from the Classical Course, and that of Bachelor of Science upon the graduates from the Scientific Course.

The degrees of Master of Arts and of Master of Science are conferred upon Bachelors of three or more years' standing who have been engaged in literary or scientific pursuits, and have sustained a good moral character.

Diplomas certifying the successful completion of the prescribed course of study are given to the graduates from the Ladies' Course, and Certificates or Diplomas to the graduates from the Normal Department.

The Palmer Museum.

The Palmer Museum of Paleontology contains the valuable collection known as the "Ward Series of Casts of Fossils," which, for educational purposes, are equal in value to the originals. These, together with the large collection of fossils, minerals, and typical rocks, belonging to the Brown Cabinet, illustrate, in a very full and satisfactory manner, the sciences of Geology, Paleontology, and Mineralogy.

The Brown Cabinet.

This collection has been appraised by experts at $18,000, and three-fourths of this sum is a gift from Rev. Dr. William B. Brown, of New York. The Cabinet embraces more than 50,000 specimens, and they cast light upon three departments in Natural Science.

The Fossils are numerous and valuable.

The collection of Minerals is rich and full, constituting three-fifths of all found on Prof. Dana's list.

The Shells are most nearly complete scientifically. Prof. Martin, of the University of New York, says of them that they illustrate the conchology of the globe.

Library and Reading-Room.

The College Library contains about 11,000 well-selected books and 14,000 unbound pamphlets. Large additions are regularly made to its numbers by purchase and by gift. In addition to other sources of income, the interest of the Willie Sage Tuttle Fund is annually appropriated to the purchase of books.

This fund during the past year has been increased $5,000 by the bequest of Mrs. Tuttle, and now amounts to $15,000. The Library is classified and arranged according the Amherst system. In connection with the Library is a Reading-Room, well supplied with the leading journals of news, politics, religion, science, literature, and art.

Religious Culture.

All students are required to attend weekly exercises for the study of the Bible. These exercises generally accompany the Sunday-school at the College Church.

All students are required to attend devotional exercises daily in the College chapel, and public religious worship twice on Sunday. Unless special request is made to the contrary by parents or guardians, all students are required to attend public worship at the College Church.

The students also sustain two organizations for religious and philanthropic work, entitled the Young Men's and the Young Women's Christian Associations. They maintain weekly religious meetings, and conduct Sunday-schools in the neighborhood of the College.

The new Reading-Room of the Young Men's Christian Association at No. 6 Parsons Hall has been neatly fitted and furnished, and affords an attractive place for reading, Bible study, and religious meetings, and adds much to the efficiency of the Christian work of the College.

Necessary Expenses.

The following may be considered a near estimate of the necessary expenses of a student for an average term of thirteen weeks. It is made upon the supposition that two students occupy the same room:

	From	To
Tuition	$5 00	$7 00
Incidentals	3 00	3 00
Room rent in College	2 50	3 75
Fuel and lights	1 85	3 00
Washing	3 25	7 00
Books	3 00	5 00
Board	20 00	32 50
Total	$38 60	$61 25

The following is an estimate of the necessary College expenses of a student in the Ladies' Course for a term of thirteen weeks:

	From	To
Tuition	$5 00	$7 00
Incidentals	3 00	3 00
Books	3 00	5 00
Washing	5 00	8 00
Board in Shipherd Hall	42 90	52 00
Total	$58 90	$75 00

Aid to Students.

Deserving young men who are preparing for the ministry may have their tuition remitted.

Such young men in the Collegiate-Classical Course can ordinarily receive $25 a term from the American College and Educational Society.

Students under the care of the Presbytery receive aid from the Board of Education of the Presbyterian church.

Tuition is remitted to the daughters of home and foreign missionaries. The income of the Carter Fund is bestowed upon worthy young ladies who need assistance.

Conclusion.

The past year has been one of few changes and steady advancement. Prof. Hamilton King, Principal of the Preparatory Department, after fourteen months of travel and study in Europe has returned with invigorated health and augmented resources for his work, and has entered upon it with greater enthusiasm than ever. All the other professors remain at their posts. Mrs. Ella M. Kedzie succeeds Miss Spooner as teacher in the Art Department and brings large experience and true devotion to her work. Mrs. Frances Goodman fills Miss Shepard's place as teacher of Vocal Music, while the latter is absent for one year more of study in her art. Miss L. L. Hosford, owing to the increase of patronage in the Musical Department, is added as teacher of the piano and organ.

The Library has received five thousand dollars more for its Memorial Fund —the bequest of Mrs. Lucy E. Tuttle, of Guilford, Conn. Six thousand five hundred dollars more have been donated by Mr. Roland Mather, of Hartford, Conn., which, together with his previous donation of ten thousand dollars, has led the Trustees to christen the new science building Mather Hall.

This beautiful structure, two stories in height, has just been finished at a cost of about $25,000, and is devoted to the various branches of Natural Science. Two elegant lecture rooms are on the first floor, and the entire upper story of the main building, a room ninety feet by twenty-eight with a large central gallery, is devoted to the College Museum. The annex, forty feet by twenty-six, contains two fine lecture rooms and the analytical chemical laboratory—one of the finest in the State. The Hall is now occupied and is a great addition to the working facilities of the College.

The annual commencement of 1884 was also observed as the twenty-fifth anniversary of the founding of the College, and the fortieth anniversary of the coming of the Oberlin colony from which the College took its origin. Historic addresses covering the three distinct periods of Olivet's life—the colony, the

Institute, and the College—were given, and the occasion was one of great interest to all the friends of the College. We are more than grateful for the struggles of the past; we are more than hopeful in the prospects of the future.

Respectfully submitted,

HORATIO Q. BUTTERFIELD,
President.

REPORT OF THE VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR—Two of your Committee appointed to visit Olivet College, discharged that duty by attending the annual examinations and commencement exercises in June last, and would respectfully submit the following report:

Every possible facility was given to your Committee to observe the work of the students, the methods of instruction, and the general management of the College.

The examinations in both the Preparatory and Collegiate Departments were well sustained, and showed clearly the high standard of excellence demanded in this institution.

Much attention is given to oratory and literary culture. The orations and prize essays of the higher classes were particularly pleasing, both in matter and delivery.

The Departments of Art and Music were in successful operation, and have added much to the popularity of the College.

A much needed and commodious building has been erected recently, and is known as Mather Hall. The Chemical and Botanical Laboratories have been moved to this building and furnished with all the modern improvements.

The moral atmosphere surrounding the College, and the efforts to sustain home-life associations among the students cannot be too strongly recommended, and should have much weight with parents in deciding where to educate their children.

In the opinion of your Committee, the high character of this College, as indicated in previous reports to your office, is fully sustained.

Respectfully submitted,

D. HOWELL,
E. A. BERRY,
Visitors.

MICHIGAN FEMALE SEMINARY.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR—The condition of the educational interests is excellent.

The faculty numbers eleven: Miss M. H. Sprague, Principal; Miss Alice King, Associate Principal; Miss E. B. Starkweather, Mathematics and Latin; Miss Marcia Keith, Natural Science; Miss E. K. Johnson, Piano and Organ; Miss M. A. Wallace, Piano and Organ; Miss Marie Hewitt, Elocution; Miss E. M. Chamberlain, Matron; Mrs. H. B. Coleman, French and German; Miss Kate E. Booth, Painting and Drawing; Prof. G. C. Shepard, Vocal Music.

Number of students, 53; Senior Class, 5; Senior Middle Class, 5; Junior Middle Class, 8; Junior Class, 16; Introductory Class, 11; Selected Studies, 8.

The regular course of study includes Classics, Literature, Mathematics, History, Natural Science and Mental Science, and occupies four years.

The following are the text-books used:

Latin Prose—Janet. Latin Grammar—Harkness. Mathematics—Milne, Olney. Physical Geography—Houston. History—Anderson and others. Physiology—Hutchinson. Civil Government—Townsend. Rhetoric—Hill. Physics—Gage. Chemistry—Steele. Astronomy—Lockyer. History of English Literature—Shaw and Backus. Natural Theology—Chadbourne. Mental Science—Haven. Moral Science—Hickok. Evidences of Christianity—Hopkins. Butler's Analogy. History of Art—De Forest.

The endowment fund amounts to fifty thousand dollars. No indebtedness and no income save from pupils. Delightful location, good library, and fine philosophical apparatus.

Respectfully submitted,
MISS M. H. SPRAGUE,
Principal.

REPORT OF THE VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR—It is with pleasure that the Committee of State visitors to the Michigan Female Seminary, respectfully submit the following report:

We met at the Institution Feb. 21, 1884, and were cordially received by

Miss M. H. Sprague, the Principal, and Miss King, the Assistant Principal, who occupy with those in their care, a large brick building healthfully located on a hill, with delightful and extensive views on all sides. The building is heated in part by a furnace, with a large Domestic Hall, an ample Dining Room, Chapel, Library, Reading Room, Gymnasium, and Recitation Rooms, with private rooms for seventy or more students. The young ladies participate daily in the domestic affairs of the Seminary, managed by a matron, who directs in a neat and orderly manner. We visited a number of the classes, and found the teachers everywhere interested in giving each pupil the best opportunity for an acquaintance with the subject of the lesson, and the students seemed disposed to make the most of their advantages. The recitations were given in a quiet lady-like manner, showing thoughtful working minds. We were greatly impressed with the home-like look of the young ladies' rooms, the neatness and order everywhere observed, and also the pleasant, courteous greeting given us by the students. The School is in fact a large, happy, Christian family, where each is working for the good of all. We heartily commend the work of the school as it relates to the training of these young women.

We feel that the Seminary, which is the only one of the kind in the State, is worthy of all the patronage it has received, and is an honor to the State.

Respectfully submitted,

MISS EMMA LEWIS,
M. LOUISE JONES,
MRS. L. E. GOULD,
Visitors.

MICHIGAN MILITARY ACADEMY.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

SIR—I would submit the following brief report of the Michigan Military Academy for the year ending June, 1884:

The enrollment during the year was less than that of the previous year, being 90, against 138 in 1882–3, the chief cause of the falling off being the action of the restrictive regulation adopted, limiting the age at which students might enter, to fourteen years and upward. This added to the inadequacy of our accommodations, was sufficient to account for the decrease.

Notwithstanding, the interest of our patrons and friends in the institution was unabated; new and commodious barracks being erected at a cost of about $20,000, and ample preparations are being made for a large accession in numbers the coming year.

The health of the corps has been remarkably good, only one or two cases of serious illness having occurred, and these of but short continuance.

The laying of the corner-stone of the new barracks by the Alumni in the presence of the Governor of the State and a number of distinguished gentlemen and ladies, friends and patrons of the Academy, was a very impressive ceremony, and the commencement exercises, in which a class of eleven were graduated, were interesting beyond former precedent.

With largely improved accommodations, we look for increased patronage for this Institution for the coming year.

Respectfully submitted,
J. S. ROGERS,
Superintendent.

REPORT OF VISITORS, 1883.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR—Your committee appointed to visit the Military Academy at Orchard Lake beg leave to report that we have made a joint visit to the same and were present at the commencement exercises, June 18, 1884.

The School is in a prosperous condition, as is best shown by the large and commodious addition now being built to the same; the instructors are efficient, energetic, and enthusiastic; the pupils contented, happy, and ambitious, and an air of the student and scholar prevails as well as the military courtesy and

soldierly bearing of the Cadet. The value of the drill upon young lads can hardly be estimated, as it leaves upon them a correct soldierly bearing which they will unconsciously retain throughout life.

We were especially pleased in the exercises at the proficiency in elocution shown by the pupils, which shows careful and correct training.

The graduating class, consisting of eleven members, graduated with honor to themselves and credit to the Academy.

We should have been pleased had time allowed us to make a longer visit, and a more extended examination into the details of the management of the institution, but we are well satisfied that the best interests of our State require that the Military Academy should be heartily and cordially sustained, and we do not hesitate to ask and recommend a generous support and patronage for the same, which certainly is a great credit to the management.

Respectfully submitted,

G. S. WORMER,
C. S. BROWN,
Visitors.

REPORT OF THE VISITORS, 1884.

Hon. HERSCHEL R. GASS,
Superintendent Public Instruction:

SIR—The undersigned, designated by your favor under the laws and custom of the State as a Board of Visitors to the Michigan Military Academy at Orchard Lake, having this day performed the duties assigned, hereby submit our report:

The origin, organization, and purposes of this school are too well known to be repeated in this report. We deem it rather our duty to inform you, and through you the public, the condition, methods, and merits of this well established link in the great chain of our educational system. Our visit was unannounced, and the school was therefore examined, so to speak, in its every day dress, and not in a holiday attire. We found the professors and teachers all at their posts, and the list, though comparatively small for the attendance, comprises a strong corps of able men, thoroughly devoted to their work, and eminently qualified for their duties as tutors. Nearly all the classes were passed in review, and the methods of teaching carefully inspected. The careful attention of the individual students, the clearness and brevity in stating questions and answers, the pleasant conversational style in which all the exercises were conducted, caused all to pass off rapidly and pleasantly, maintaining the full attention of students and visitors to the close of each exercise. The entire curriculum of study was thus examined and inspected and we feel great pleasure in attesting the practical methods of instruction and the manly application and evident proficiency of the students. The management set up no claim to superior merit, only aiming to complete a full preparatory course. We found the results more than justified the claims made. Especially is this true in the branches of natural sciences, the mathematical courses, and in history and English literature, while the instruction in ancient and modern languages is ample and very accurate and complete. The fact that all graduates of this Academy are admitted to the State University, in all departments without further examination, fully attests the high standard of instruction,

the completeness of its courses of study and the success of its teachers and management. In addition to these merits, the military organization, methods and training of the students is a feature possessed by no other educational institution in the State. Appreciating the great benefits of this technical branch of education, not only in view of past history, but of a prudent provision for the future of our State and Nation, we regard the military features, discipline, and training found at this Academy as one of its most commendable features. The manly bearing, the self-reliance, the physical discipline and endurance, the practical experience this system imparts to every student, are evidence that graduates of the Michigan Military Academy are all the better fitted for every station in civil life, with the added benefits of a thorough and practical military training. Our State is blessed with many and valuable institutions of learning, from our district schools to our eminent University, to educate its sons, and still higher raise the standard of intelligence and civilization. But here alone is found the combination of a military with a civil education, the arts and duties and practices of war placed side by side and taught hand in hand with the arts of peace and the pursuits of business. "In times of peace prepare for war." Here only is this wise adage finding its development and growth. That the idea is a popular one with the best class of our citizens we need only to note the increasing popularity and attendance of this school. Its growth is so rapid that every year it overruns its accommodations, and we were pleased to note that the erection of the third addition to its accommodations in the last five years was in progress in the shape of another elegant brick building designed to accommodate one hundred additional students, and which will be completed and ready for use by the 1st of September next.

In all regards, in scientific and practical education, moral training, physical development and personal advancement, and, still further, in military education and experience which this Academy imparts, it is eminently worthy of present approval and future support, not only by able and liberal citizens, but by a rich, growing, and substantial State.

Respectfully submitted,

CHARLES V. DELAND,
HARRISON SOULE,
O. D. THOMPSON,
Visitors.

DETROIT HOME AND DAY SCHOOL.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR,—In reply to the several questions contained in your circular of the 11th inst., I submit the following statements:

The institution is in a very prosperous condition and doing a successful work. The names of all the instructors employed during the year are,

Ella M. Liggett, A. B., Mathematics and English Literature.
Madame M. de Zielinska, French Language and Literature.
Ella McCaleb, A. B., Natural Sciences.
Emma Carhartt, History and Botany.
Anne Lyon, A. B., Rhetoric, Reading, and English Composition.
Susan Coleman, A. B., Mathematics and Latin.
Mina Baker, German Language and Literature.
Chas. W. Hitchcock, A. B., Latin and Greek.
C. C. Yemans, M. D., Lecturer on Physiology.
Mrs. A. W. Livermore, Lecturer on English Literature.
Kate Flynn, Penmanship.
Grace N. Duncan, Geography and English Grammar.
Nettie G. Thayer, Director of Study Hall.

PRIMARY DEPARTMENT.

Jeannette M. Liggett, M. F. Wood.

BOARD OF TRUSTEES.

J. S. Farrand, D. Whitney, Jr., Geo. Peck, H. K. White, Ashley Pond, Jas. McMillan, D. M. Ferry.

D. Whitney, Jr., President; J. S. Farrand, Vice-President; H. K. White, Treasurer; J. D. Liggett, Secretary.

NUMBER OF STUDENTS ENROLLED 1883–84.

Primary Department:	
Girls	36
Boys	20
Preparatory:	
Girls	69
Boys	34

Collegiate:	
Girls	55
Boys	7
Taking special studies	10
Total	231
Resident pupils	15
In the School of Music	162

COURSE OF STUDY.

The course of study extends over a period of twelve years, and includes liberal and through instruction in the Ancient and Modern Languages, Mathematics, History, Literature, and the Natural Sciences. The Classical Course is arranged with reference to preparation for entering college. Each pupil is carefully graded and only allowed to pass from one grade to the next higher after reaching the approved standard.

Primary Course.—Completed in Four Years.

Arithmetic—Mental and Practical, to Fractions. Introductory Geography. Language Lessons. Oral lessons in the Natural Sciences. Reading, Spelling, Penmanship. Calisthenics. Vocal Music.

Preparatory Course.—Completed in Four Years.

Arithmetic—Common and Decimal Fractions, Analysis, Denominate Numbers and Percentages. Algebra—Elementary. Geography. English Composition. History of the United States. Readings from English History. Reading—Selections from best English and American authors. Spelling and Defining. French, German, or Latin. Penmanship.

Collegiate Course.—Completed in four Years.

Mathematics—Arithmetic completed, Algebra, Geometry, Trigonometry (elective). Natural Sciences—Physical Geography, Physiology, Botany, Chemistry, Geology, Physics, Astronomy. English—Analysis and Syntax, Rhetoric, English Literature, Civil Government, Logic. Languages—French, German, Latin, Greek. History—English, French, Mediæval, Roman, Grecian, with Mythology—taught first by a series of imaginary travels through the different countries, with a study of the important physical features, the most famous cities, buildings and art treasures of each, and the people and events associated with them. Later, the most interesting periods are taken up in detail in connection with the literature of the time.

The School has well selected apparatus, and its reference library is growing more valuable every year.

Teachers of drawing and painting will be secured if desired.

The value of the real estate is, at cost, $42,000. Amount of stock subscribed $42,000, and amount paid in $33,000. As fast as the unpaid stock is paid, the proceeds will be appropriated to pay the debt of $9,000 that is secured by mortgage on the property.

The school furniture, apparatus, library, and all other personal property used in the school, and worth from six to eight thousand dollars, belongs to J. D. Liggett and daughters, who started the school six years ago as a private enterprise, and is all paid for.

The following is the number of pupils in the several grades:

PRIMARY DEPARTMENT.

First year	12
Second year	13
Third year	15
Fourth year	16
	56

PREPARATORY DEPARTMENT.

First year	21
Second year	28
Third year	25
Fourth year	28
	102

COLLEGIATE DEPARTMENT.

First year	14
Second year	16
Third year	26
Fourth year	7
Special	10
	73

Respectfully submitted,

J. D. LIGGETT,

Secretary.

GERMAN-AMERICAN SEMINARY.

REPORT OF VISITORS.

Hon. HERSCHEL R. GASS,
Superintendent of Public Instruction:

DEAR SIR,—The undersigned, one of the committee appointed to visit the German-American Seminary of the city of Detroit, begs to submit the following report:

As its name implies, the Institution was established for the purpose of giving thorough instruction in the German and the English by the actual use of both languages in all classes.

The teachers must have a practical knowledge of both the German and the English, and in the class room is heard the student using now the one, now the other.

The branches pursued are about the same as those covered by the Primary and the Grammar Departments of the graded schools.

In connection with the Institution, there is a well equipped Kindergarten, and the work done seems to be of a high order.

Much attention to Music is given in all classes.

The School is modestly equipped with school appliances, such as maps, charts, physical and chemical apparatus, etc.

The Institution labors under the disadvantage of having too small a capital to work on.

A visit was paid to the Seminary in April last, when the actual class work of the Institution was observed. The teachers seemed enthusiastic, and the students showed a commendable degree of proficiency.

Respectfully submitted,
WESLEY SEARS,
Visitor.

PROCEEDINGS

AT THE

FOURTH ANNUAL MEETING

OF

COUNTY SCHOOL EXAMINERS.

HELD AT LANSING, DEC. 29, 1884.

FOURTH ANNUAL MEETING OF COUNTY SCHOOL EXAMINERS.

Lansing, December 29, 1884.

The meeting was called to order by President Plowman at 2:15 P. M. Owing to the absence of the Secretary, W. H. Brunson was elected Secretary *pro tem.* The report of the last meeting was read and approved.

The committee appointed at the last meeting, consisting of Eugene Miller, H. R. Gass, and Jay Calkins, to draft a bill looking to the union of the offices of Examiner and Visitor, submitted the following report:

1. The Board of Examiners to be elected as at present.

2. The Board to elect from their number one member as Secretary, one as School Visitor, and the remaining member to be Chairman of the Board.

3. The duty of School Visitor shall be to visit each school in the county at least once in each term.

4. In case the Visitor is unable to do the work, he shall call to his aid the other members of the Board, giving the President the preference.

5. The School Visitor to be paid for services rendered a stated amount per school visited.

Calkins, of Ingham, called for roll of counties to determine the number in attendance.

Shaw, of Presque Isle, reported that teachers in that county were teaching without certificates, and others were granted blank certificates and were teaching on them.

Supt. Howell, of Lansing, reported that the committee on the same subject, which would report to-morrow at the Teachers' Association, would recommend the uniting of the office of School Visitor with that of Secretary,

Supt. Ewing, of Ionia, thought the office of Secretary and Visitor should be combined and gave figures to prove that it could be obtained for $1,200, a sum not larger than the sum now paid for Examiners and Inspectors.

Prof. King, of Olivet, supported the views of Mr. Ewing.

Mr. Schurtz thought that the offices should not be combined, as the work is too much for one person. The county should be divided and a district given to each of the Examiners.

Supt. Church, of Greenville, thought that the Examiners certified to the moral character of a teacher and found out about it afterwards. The same is true, also, in regard to theory and art. As to expense, we cannot pay several persons enough to warrant them spending their time. Now, when the members of the Board have paid their traveling expenses and board, nothing is left to any save the Secretary. Let the Secretary hire a clerk to do the office work

and thus leave him free to do the supervising, to act as a sort of field marshal. As the fees are now, no one but a bachelor can hold the office of Examiner and Visitor.

Mr. Ewing asked how the last remark would apply to the office of Superintendent of Public Instruction.

Supt. Bemis, of Portland, thought that one man could do the work of supervision in a county. All schools and all teachers would not need visiting every term, but let the supervision be like that of a Superintendent of city schools. When a room is in good running order, and you know it, it does not need supervision.

Mr. Calkins, of Leslie, thought that the old system of County Superintendent was done away with, not so much on account of expense as that it was a one man power, too much favoritism, etc. Let us not equivocate in terms. This system proposed is virtually that of County Superintendent, then call it such and not County Examiner. Be honest and candid with the people and not try to get back to the old system under a new name. As to expense, in an average county of 150 districts the Secretary's salary would be $300, then allow $375 per term for visiting. This would make $1,400. Let the man on the Board who examines teachers on theory and art be the visiting officer. He thought that the plan reported by the committee would not be more expensive than the plan now in force.

Mr. Warner, of Washtenaw, said: The expense now is largely defrayed by the townships—county pays from $300 to $400 and the townships pay from $800 to $1,000. Some one has said that the reports from the Township School Inspectors are worthless; they are not, they are worth enough to convince us of their worthlessness. The law as formed was intended to elevate the standard of teachers, but as the election of County Examiners is so largely placed in the hands of teachers, and they so often reject Examiners who dare to do their duty, the law is a failure as to this intent. Let the Judge of Probate choose the Examiners.

Supt. Sears, Mt. Clemens, believed that it would be a good plan to refer the subject back to the committee, with instructions to confer with the committee which is to report to the Teachers' Association.

Supt. Miller, Grass Lake, believed in keeping this system of examination as far as possible from the method of county superintendency. Had consulted with two members elect of the Legislature from Jackson county, and they had said: "Don't try to urge us to revive anything which is at all similar to the old county plan, it can't be done." As to expense, the method as reported by this committee is not more than $200 more expensive than is the present plan in Jackson county. Do away with one man power as much as possible. Let the Secretary continue to have his duties as he now has them; let the third member of the Board be the "Visitor," and then all the officers will have something to do. Some one has suggested that the members of the Board be appointed by the Judge of Probate, as he was a non-political officer. This would be unwise in my judgment. The Judge of Probate is as much a partisan officer as any in the county; most so of any in our county. Putting the appointment in his hands would not remove it from politics, but would remove it further from the people.

The motion to re-commit was lost.

It was then moved to amend the committee's report so as to combine the office of Secretary and Visitor in one office.

Huston, of Ingham, called for a roll of the counties, to determine who had the right to vote. Roll called.

Motion lost, 14 to 6.

A motion to adopt the report of the committee was decided in the affirmative by the vote of the President, Mr. Plowman. The next subject which was brought up was "Uniformity of text books through County Boards."

Supt. Ewing, of Ionia, spoke as follows:

Uniformity of Text-Books through County Boards.

It is not necessary to argue the importance of this subject. Of this there can be no question. There is, however, a difference of opinion as to how far the uniformity of text-books should be carried—whether it should include the entire State or be limited to counties. For our purpose we shall adopt the latter view. The influence and power of County Boards of Examiners do not reach beyond the limits of the county, therefore it would be difficult to see how County Boards could assist in State uniformity; but since they are the only school officers whose authority is co-extensive with the county, it can readily be seen that their influence might be made to assist county uniformity very much. In their official capacity they can and should promote the highest interests of the schools in their respective counties.

Their work is not done when they have examined teachers enough to teach the schools. They should be the leaders in educational progress.

Among the other duties that may devolve on them is this: What can County Boards do to bring about a uniformity of text-books?

We give below a plan which, if carried out, will assist very much in the direction of this desirable result.

1. Let the county Board of Examiners appoint a committee consisting of leading teachers in the county, some Principals and Superintendents of graded schools, and some teachers in district schools, to co-operate with them, of which committee they shall be *ex-officio* members. The number appointed should depend upon circumstances. This committee, including the Examiners, should carefully examine all text-books submitted to them with the view of recommending them for adoption in the schools of the county.

2. Let the examiners issue a blank circular to the teachers of the county to fill out and return to them, containing a full list of the text-books used in each school. From these returned circulars a summary report of all the different text-books used in the county should be made, to be in the hands of the committee for reference while they are examining books.

3. In this examination, reference should be had to the kind and number of text-books in use, and if it should be found that one or more of the text-books in general use is satisfactory, or even fairly so, let such book or books be recommended for general adoption.

The difficulty of changing books in district schools, and the fact that those books adopted and in use must be kept in the schools five years, should be carefully considered by the committee in making their recommendations.

4. The deliberation of this committee should be private and independent as far as possible of any influence that may be extended in behalf of any publishing house. No agent should be allowed to come before the committee to advocate the merits of the books he is handling. Let the committee frankly, fairly, and thoroughly examine the books before them, free from outside influence, and decide on their merits.

5. When the committee have completed their work, having taken time to do it well, they should report to the County Teachers' Association, if there is such an organization, for their ratification. This course will give to the work of the committee the sanction of other teachers, which is very necessary to the success of the plan. This report should also be presented to the Chairmen of the Township Board of Inspectors at their annual meeting for their sanction. In this way, the influence and support of the township school officers can be secured.

6. When the report of the committee has been adopted by the County Teachers' Association and Township Inspectors' meeting, or by the Inspectors' meeting alone in case there is no County Teachers' Association, the Board of Examiners should issue a circular to the teachers and school officers of the county, setting forth the advantages of text-book uniformity, giving a complete list of the books recommended, the plan by which this recommendation was brought about, also its ratification by the teachers and Township Inspectors, and urging school officers to co-operate with the teachers in securing gradual uniformity. The expense of printing and sending the circulars could be met in the same manner as the necessary expenses of the Board.

7. I would suggest that the books recommended for adoption be selected from the publications of the various school-book houses. It would be no difficult matter to find acceptable books in the list of any of our leading publishing houses. For example, take the arithmetics from one list, grammars from another, geographies from another, readers from another, etc. It would then be to the interest of all the houses represented, to support the plan for securing uniformity.

Advantages of the Plan.

1. It will secure the co-operation of the graded schools of the county because you have the Principals and Superintendents of these schools on your committee of recommendation. These graded schools are centers of influence in school matters, and the district schools in their immediate vicinity will readily adopt and use the same books, so that if all the villages and cities in the county adopt the same books, the teachers in the district schools will have but little difficulty in securing practical uniformity in text-books.

2. The teachers will have a plan to guide them in the introduction of the necessary text-books; they will also have the support of the influential teachers of the county in their efforts to secure uniformity; in addition they will have a complete list of text-books recommended, so that they can all work together along the same line toward uniformity.

3. This plan combines all the educational forces of the county, the Board of Examiners, Township Chairmen, and the teachers of all grades, and if judiciously managed cannot fail to bring about the desired end.

4. It will practically put an end to the changing of books by agents going around among School Directors during vacation and persuading them to introduce their books, which perhaps are inferior to those already in use.

It will also put a stop to teachers changing text-books to suit their own whims. All these and many other advantages will result from the faithful execution of this plan for securing uniformity of text-books throughout our district schools.

I am fully aware that this is only advisory, but the combination of all the influences that can be brought to bear, will most certainly bring satisfactory

results, and as long as the present law remains in force it is the only practical method that can be adopted.

Supt. Thompson, Romeo, doubted if there is a county in the State where there is a district school having a uniformity of text-books. Can we effect any change in this respect? Can we not get some plan inaugurated which will finally accomplish this desirable uniformity? Get a committee together of School Inspectors and teachers to recommend a list of books, and if thoroughly alive and persistent will they not accomplish much? Multiplicity of text-books is due largely to teachers; each teacher has his pet books, and if they are not in use when he goes into the school, he introduces them and says nothing to any one. I believe, however, that no complete system of uniformity can be brought about without altering the law in such way as to give the County Board greater power over teachers and districts. Mr. Thompson called attention to a letter from Chas. Carleton Coffin on this subject, which is very enthusiastic in its support of free text-books and says that free text-books is the remedy for all the ills that have troubled us in our school work.

Mr. Brunson, of Clinton county, had tried the plan of adopting a uniformity of text-books, and until the law was changed begged to be excused from any further attempt. The fact that some townships had adopted the whole series of some one house had made it almost impossible to bring about uniformity.

Supt. Ewing believed that much could be done by County Examiners and associations, even though it be only advisory. It had worked quite successfully in Ionia county. Get the principal schools of the county to adopt some certain books and in a few years the whole county will come to it.

Mr. Calkins, of Ingham, thought we should attempt to bring about uniformity for larger bodies than mere districts.

Mr. Calland, of Gratiot, believed in uniformity and heartily supported the plan advocated by Supt. Ewing, and moved, "That it is the sense of this body that uniformity of text-books is desirable and practicable, and that we urge upon the Legislature the question of uniformity of text-books by counties."

Carried unanimously.

Report of committee to draft constitution and by-laws was next read and adopted.

The following officers were elected by acclamation:

President—J. G. Plowman, White Pigeon.

Vice-President—O. D. Thompson, Romeo.

Secretary—W. H. Brunson, St. Johns.

Treasurer—Jay Calkins, Leslie.

Executive Committee—J. W. Humphrey, J. W. Ewing, E. P. Church.

Moved that it is the wish of the Examiners to continue the plan of using uniform State questions at all examinations.

Carried unanimously.

List of Examiners Present.

Allegan—J. W. Humphrey.
Barry—Enoch Andrus, W. J. Marble.
Bay—S. R. Hoobler.
Benzie—Mrs. Rose Woodward.
Clinton—W. H. Brunson.
Eaton—Orr Schurtz.
Gratiot—W. C. Calland.

Ingham—J. S. Huston, A. R. Hardy, J. J. Calkins.
Ionia—J. B. Millard, J. W. Ewing.
Jackson—Eugene Miller.
Kalamazoo—Ashley Clapp.
Kent—W. M. Chapman.
Macomb—O. D. Thompson.
Mecosta—C. E. Tuck, W. D. Hopkinson.
Montcalm—E. P. Church.
Muskegon—J. H. Cogshall.
Oakland—T. S. Clark.
Presque Isle—Thos. E. Shaw.
St. Joseph—J. G. Plowman.
Shiawassee—E. M. Plunkett, G. R. Brandt.
Washtenaw—E. C. Warner.
Number of Examiners present, 27.
Number of counties represented, 20.
Adjourned.

TRANSACTIONS

OF THE

MICHIGAN STATE TEACHERS' ASSOCIATION

AT THE

THIRTY-FOURTH ANNUAL MEETING,

Held at Lansing, Dec. 29, 30, and 31, 1884.

STATE TEACHERS' ASSOCIATION.

Officers for 1884.

President,

Z. C. SPENCER, . . Battle Creek.

Vice-Presidents,

I. N. MITCHELL, . . Grand Rapids.
F. A. BARBOUR, . . Coldwater.

Secretary,

H. C. RANKIN, . . . Olivet.

Treasurer,

T. S. CLARK, . . . Davisburg.

Executive Committee,

1881-4.

C. A. GOWER, . . . Lansing.
E. J. MCEWAN, . . . Lansing.
MISS M. LOUISE JONES, . Charlotte.

1882-5.

C. F. R. BELLOWS, . . Ypsilanti.
E. A. STRONG, . . . Grand Rapids.
DR. H. B. BAKER, . . Lansing.

1883-6.

J. W. EWING, ... Ionia.
W. H. PAYNE, . . . Ann Arbor.
A. E. HAYNES, . . . Hillsdale.

Officers for 1885.

President,

L. L. MCLOUTH, . . Ypsilanti.

Vice-Presidents,

E. P. CHURCH, . . Greenville.
J. L. LUCAS, ... Niles.

Secretary,

WESLEY SEARS, . . Mt. Clemens.

Treasurer,

C. T. GRAWN, . . Traverse City.

Executive Committee,

1882-5.

C. F. R. BELLOWS, . . Ypsilanti.
E. A. STRONG, . . Grand Rapids.
DR. H. B. BAKER, . . Lansing.

1883-6.

J. W. EWING, ... Ionia.
W. H. PAYNE, . . Ann Arbor.
A. E. HAYNES, . . Hillsdale.

1884-7.

DAVID HOWELL, . . Lansing.
HAMILTON KING, . . . Olivet.
LUCY A. CHITTENDEN, Ann Arbor.

STATE TEACHERS' ASSOCIATION.

TRANSACTIONS OF THE THIRTY-FOURTH ANNUAL MEETING.

Lansing, Monday, Dec. 29, 1884.

OPENING SESSION.

President Spencer called the Association to order at 7:30 P. M. Mr. W. L. Smith and Mrs. Flora Rarrick sang "Come where the violets blow," after which Dr. Fiske, of Albion College, conducted devotional exercises.

Then followed a solo, "The watcher," by W. L. Smith, which the Association received with marked favor.

President Chas. O. Thompson, Rose Polytechnic Institute, then delivered an address, "Technology in the Public Schools."

This address was followed in discussion thereof by President Willits, of the State Normal School.

President Fiske, in behalf of the Association, then moved a resolution of heartfelt thanks to the speakers, Messrs. Thompson and Willits, for their able, eloquent, and instructive discussion, which was enthusiastically adopted.

Lansing, Tuesday, Dec. 30, 1884,

MORNING SESSION.

Association called to order by President Spencer at 9 o'clock.

Devotional exercises were conducted by Hon. Ira Mayhew, Detroit. Supt. Spencer, Battle Creek, then delivered his inaugural address, entitled "Some Limitations of Educational Progress." The President then appointed T. S. Clark, of Davisburg, treasurer of the Association.

W. J. Beal, Agricultural College, then opened the discussion of "Industrial Education," followed by Messrs. Baxter, of Jonesville; Bellows, George, Ypsilanti; Haynes, Hillsdale; Lucas, Niles; Butts, Orchard Lake; Ira Mayhew, Detroit.

Knight sang "The Broken Pitcher" and "The Maiden's Wish." Mr. Sprosa gave a cornet solo. Miss Rounds then recited "Aunt Peggie in High Art," "The Wind and the Moon," "A Similar Taste," and "The Bird's Singing Lesson." Mrs. Knight then sang "Bridal Bells."

Wednesday, December 31.

MORNING SESSION.

Devotional exercises were conducted by Prof. Bellows.

The first paper of the morning was read by Prof. Austin George, State Normal School, subject—"Methods of Teaching the English Language in Grades below the High Schools and in District Schools." Discussion opened by John Brebner, High School Inspector, Ontario. Mr. Brebner was followed by Messrs. Clark, George, Abbott, and Taylor. After a short recess a paper, "The Why and the How of the use of English Authors in the High School," was read by Miss L. A. Chittenden, High School, Ann Arbor. This paper was discussed by Messrs. Carman and Graves.

A telegram was read from Col. Parker, saying he would be present at the appointed time. A telegram was also read from the State Teachers' Association in session at Topeka, Kansas, to wit: "Four hundred Kansas teachers, in convention assembled, send hearty New Year's greeting to their brothers in Michigan." The Association ordered an immediate response. The president dictated the following reply: "Four hundred Michigan teachers, by a shouting vote, return compliments to their brothers and sisters in Kansas."

AFTERNOON SESSION.

The Association proceeded to elect a President by ballot. The second ballot resulted in the choice of Prof. L. McLouth of Ypsilanti.

The report of committee on nominations was read and adopted. The following officers were chosen:

First Vice-President—E. P. Church, Greenville.

Second Vice-President—J. L. Lucas, Niles.

Secretary—Wesley Sears, Mt. Clemens.

Treasurer—C. T. Grawn, Traverse City.

Executive Committee—David Howell, Lansing; Lucy A. Chittenden, Ann Arbor; Hamilton King, Olivet.

The committee on resolutions submitted the following resolutions which were adopted:

1. *Resolved*, That this Association heartily appreciate and cordially commend the efforts of the President and officers of the Association in the preparation and successful presentation of so excellent and instructive a programme of exercises.

2. *Resolved*, This Association gratefully recognize the courtesy of Gov. and Mrs. Begole in their efforts to contribute to the pleasure of the teachers at our annual gathering.

3. *Resolved*, We extend our sincere thanks to the Board of Control of the State buildings for the free use of the commodious rooms of the State Capitol for the meeting of the Association.

4. *Resolved*, The efficient co-operation of State [illegible]t. Gass with the Association is gratefully acknowledged, as also [illegible] assistance of [illegible] others who have provided the music for our s[illegible]

5. *Resolved*, We note with hearty appro[illegible] [illegible] teachers in Michigan in favor of the most [illegible] believing that the pupils in our scho[illegible] relation to the Natural Sciences and [illegible] demonstrate these theories by [illegible]

learning to construct it, that thus skill of hand may be combined with intellectual training.

Supt. Howell offered the following resolution:

Resolved, That inasmuch as the report of this meeting does not usually appear in full until some time in June or July, therefore this Association do now request our State paper, *The Moderator*, to publish these proceedings in full at as early a date as convenient.

The resolution was adopted.

The usual number of reports was ordered printed, *i. e.*, two to each member, ten to the President of Association, and five to each person furnishing a paper.

The following resolution was offered:

Resolved, That, in view of the need of a more systematic study of the theory and science of education, the President of this Association appoint a committee of three to devise and report a scheme for "Teachers' Reading Circles," the committee to report to the next Teachers' Institute; and if the scheme shall meet the approval of that Institute, that the Superintendent of Public Instruction be asked to embody it in the next Institute Manual.

Resolution adopted, and the President appointed the following committee: Supt. W. S. Perry, Prof. W. H. Payne, Prof. Daniel Putnam.

Treasurer's report read and approved, showing that the expenses of this meeting had been more than met by the membership fees (some thirty more than last year), thus leaving a balance in the treasury.

Col. F. W. Parker, Cook County Normal, Chicago, Ill., then delivered his address, "Learning to do by Doing," to a large and enthusiastic audience. President Spencer, in a few appropriate words, introduced the President elect, Prof. L. McLouth, who spoke briefly, after which the Association adjourned.

H. C. RANKIN,
Secretary.

Z. C. SPENCER,
President.

REPORT OF THE TREASURER.

DEBIT.

1883.				
Dec. 28.	To balance on hand, draft		$169 35	
1884.				
Dec. 31.	To annual dues		139 00	$308 35

CREDIT.

1884.				
Dec. 31.	By cash to	C. T. Grawn	$169 35	
"	"	Col. Parker	25 00	
"	"	Prof. Thompson	22 00	
"	"	President Spencer	29 80	
"	"	Secretary Rankin	12 00	
"	"	Orchestra	20 00	
"	"	Miss Rounds	8 50	
"	"	Rent of piano	7 00	
"	"	Membership tickets	2 00	
"	"	Incidentals	1 00	
"	"	on hand	11 70	$308 35

Respectfully submitted,

T. S. CLARK,
Treasurer.

LIST OF MEMBERS, 1884.

Arbury, F. W., Fenton.
Ackers, J. Eva, Williamston.
Aleshire, O. E., Buchanan.
Burkhead, S. G., Hillsdale.
Bellows, C. F. R., Ypsilanti.
Bellows, Mrs. C. F. R., Ypsilanti.
Butts, Mrs. A. B., Goshen, Ind.
Bibbins, Arthur S., Hanover.
Bemis, C. L., Portland.
Beal, W. J., Lansing.
Butts, W. H., Orchard Lake.
Barr, S. D., Albion.
Bradner, Mittie, Redford.
Brown, E. N., Jonesville.
Broesemle, G. W., Marlette.
Barnhart, I. W., Flint.
Burdon, Lilian, Grand Rapids.
Baker, Henry B., Lansing.
Barbour, F. A., Coldwater.
Birney, Martha, Traverse City.
Boynton, Etta S., Jackson.
Beech, Effie, Mason.
Brebner, Sir John, Ontario, Canada.
Buck, Jennie A., Lansing.
Boosinger, Luella, Lansing.
Church, E. P., Greenville.
Crombie, J. S., Big Rapids.
Carman, Geo. N., Union City.
Chittenden, Miss L. A., Ann Arbor.
Crotty, J. F., Lansing.
Clizbe, W. D., Lapeer.
Cook, Webster, Manistee.
Clapp, Ashley, Vicksburg.
Cheever, Walter H., Northville.
Cairus, L. E., White Pigeon.
Cook, Albert P., Milford.
Calland, W. C., St. Louis.
Cairus, C., Schoolcraft.
Condlct, Julia A., Tecumseh.
Cogshall, Jas. H., Fruitport.
Chaffee, Mrs. C. G., Flint.
Copp, J. S., Hillsdale.
Clark, T. S., Davisburg.
Cole, C. H., Hastings.
Cottrell, Annie M., Battle Creek.
Dibble, Julia A., Kalamazoo.
Dow, L. E., Hillsdale.
Dockeray, C. L., Rockford, Ills.
Derr, H. F., Mason.
Davis, Mrs. M. F., Shaftsburg.
Dolan, Chas., Wayne.
Enos, H. M., Cadillac.
Everst, Louie, Lyons.
Ewing, J. W., Ionia.
Fall, Delos, Albion.
Fiske, L. R., Albion.
Ferris, W. N., Big Rapids.
Fairfield, E. B., Grand Haven.
Gibson, L. D., Lyons.
Gage, F. S., Concord.
Graves, M. O., Ann Arbor.
Grawn, C. T., Traverse City.
George, Austin, Ypsilanti.
Glover, Fannie E., Cassopolis.
Howell, David, Lansing.
Haynes, A. E., Hillsdale.
Huston, Grace E., Williamston.
Huston, J. S., Williamston.
Hayden, N. H., Olivet.
Humphrey, J. W., Wayland.
Hopkinson, W. V., Paris.
Hammond, David, Tecumseh.
Hitchcock, Ettie, Grand Rapids.
Hume, Miss M. A., Lansing.
Hickey, Mrs. A. D., Lansing.
Johnson, Samuel, Lansing.
Jenkins, Charles, Mason.
Jennings, Emma, Grand Rapids.
King, Hamilton, Olivet.
Knight, G. W., Ann Arbor.
Lucas, J. L., Niles.
Lahuis, Albert, Zeeland.
Lovell, Miss A., Grand Rapids.
Lowrey, Chas. E., Ann Arbor.
Lathrop, Miss A., Grand Rapids.
Lane, Miss H. L., Webberville.
McLouth, Louis, Ypsilanti.
McDonald, Miss M. E., Ann Arbor.
McMahon, Lois, Ypsilanti.
McMahon, Anna, Jonesville.
McLean, C. M., Olivet.
McLouth, Clarence D., Lansing.
McVean, Mary, Lowell.
McDonald, Marian, Mason.
McGee, Zelos F., Millits.
MacEwan, E. J., Lansing.
May, Effie, Dansville.
Miller, Eva, Dansville.
Manning, J. W., Holly.
Marshall, Archie, Dansville.
Marble, Milton M., Lansing.
Mayhew, Ira, Detroit.
Mead, J. N., Cedar Springs.
Millard, J. B., Belding.
Mitchell, I. N., Grand Rapids.
Mayhew, Emma, Detroit.
Marks, Mrs. G. H., Webberville.
Norton, S. W., Brooklyn.
Oslnga, G. A., Three Rivers.
O'Leary, John A., Breedsville.
O'Brien, E. A., Jackson.
Perry, W. S., Ann Arbor.
Parsons, David, Detroit.
Pickell, Chas. W., Ludington.
Payne, W. H., Ann Arbor.
Plowman, J. G., White Pigeon.
Plowman, Mrs. J. G., White Pigeon.
Pattengill, H. R., Grand Rapids.
Post, Nellie, Grand Rapids.
Plunkett, E. M., Vernon.
Parkhurst, Grace, Tecumseh.
Parmenter, E. L., Menominee.
Rankin, H. C., Olivet.
Richards, N. A., St. Louis.
Rogers, J. M., Schoolcraft.
Spencer, Z. C., Battle Creek.
Sears, Wesley, Mt. Clemens.
Stanton, W. J., Oxford.

LIST OF MEMBERS, 1884.—*Continued.*

Stewart, Wm. L., Ridgeway.
Stuart, Louis, Chicago University.
Stone, J. L., Battle Creek.
Stout, Amanda, Grand Rapids.
St. Clair, J. A., Belleville.
Swan, W. L., Lansing.
Sutton, Nellie, Detroit.
Strong, E. A., Grand Rapids.
Simmons, D. P., Elk Rapids.
Sill, J. M. B., Detroit.
Swain, A. J., Stanton.
Sherwood, Alva, New Troy.
Smith, Irwin F., Lansing.
Smith, Ella, Grand Rapids.
Smith, Eva, Ovid.
Sullivan, Julia, Hadley.
Shuart, W. L., Lowell.
Taylor. F. M., Albion.
Tuck, C. E., Mecosta.
Truesdell, Anna L., Rockford.
Taylor, D. G., Oxford.
Thompson, O. D., Romeo.
Vandewalker, T. E., Shaftsburg.
Walbridge, N. H., Grand Rapids.
Wheelock, Clara, Lyons.
Warner, J. C., Ypsilanti.
Warner, W. W., Bridgeport.
Williams, J. D., Allen.
Wilson, Eugene, Vassar.
Wickham, F. O., Howard City.
Wilson, H. C., Blissfield.
Willits, Edwin, Ypsilanti.
Wallace, F. A., Ada.
Weed, Alice, Sand Beach.
West, Emily, Flint.

PRESIDENT'S ADDRESS.

SOME LIMITATIONS OF EDUCATIONAL PROGRESS.

BY Z. C. SPENCER.

To welcome you, fellow teachers, to this annual reunion of our brotherhood is my happy privilege and duty. This noble edifice and these spacious halls have grown to be our educational Mecca, and I am glad to know that the pilgrimage is so numerous at this time. I am sure we all feel it is good for us to be here. It is at these reunions that we come under the kindly influence of many forces,—blessings shall I not call them?—chief among which is the inspiration that comes to us when we are permitted to feel the warm hand-clasp of a brother worker, and

> "To meet the same smiles and to hear the same tone
> Which have greeted us oft in the years that have flown."

Narrow-mindedness, conceit, and a degeneracy of intellectual and social powers overtake him who leads a secluded life. Intercourse with equals and superiors is essential to the highest individual development. By reason of their peculiar circumstances, teachers are largely debarred of this association with matured minds and need to profit by the social advantages that attach themselves to this and kindred greetings. It should be the policy of our executive committees to make ample provision for the cultivation of this feature of the association.

But the social advantages do not stand alone; on a plane scarcely below these are the intellectual. It is here that our stock of knowledge, of theory, of belief, is pruned of its inaccuracies and strengthened by new and wholesome material. False ideas yield to the true; partial truth is made whole.

"Ring out the false, ring in the true," is sound educational doctrine as well as excellent poetry. It leads to progress. The false and partial may have so deep lodgment in the belief, in the conviction, as to require heroic treatment to effect its removal. An incident that occurred at the late meeting of the American Association for the advancement of Science, at Philadelphia, illustrates this truth: Professor Williams in the course of his lecture declared that the *Spirifer disjuncta* and the *Spirifer messostrialis*, two kinds of fossils, exist side by side in the same rocks. Professor Hall, State Geologist of New York and one of the greatest living authorities on fossils, upon hearing this declaration, replied: "If any one will show me the two *Spirifers* side by side in the same rock, I will sacrifice my life's work. I will give up my reputation, eat my hat, and make the person who shows me the rock a present of my coat and boots." Professor Williams slipped out of the hall, took the first train to Ithaca, and returning the next day, came to the meeting and solemnly

dumped a big box of rocks on the floor. It was consigned to Professor Hall in the following words: "The enclosed rock contains the *Spirifer disjuncta* and *Spirifer messostrialis* side by side. You have it. Please eat your hat, and send me your coat and boots by express."

Better for that man, some may think, had he remembered the saying of the sage of Craigenputtock, "Silence is the eternal duty of man." Not so. Had he kept his peace he would still be in error. Controversy elicited a free and emphatic denial of the truth which in turn produced most convincing testimony of its soundness. The discussion was most profitable.

This leads me to the main purpose of this paper, an enumeration of

Some Limitations of Educational Progress.

I. As the first of these may be named the inefficient direction of discussion and inquiry.

The reflection forces itself upon the mind of him who would keep abreast with the educational thought of the day, that the prolixity of discussion with which the air is filled, has a tendency to confuse and to bewilder. The dictionary definition of discussion is agitation in order to some determination. We have agitation in abundance, but the outcome does not conform with this standard. In fact, the spirit of the times seems to demand agitation only, not in education merely, but in all departments of human thought. Criticism is especially rife. It boldly enters within the domain of private and public institutions, and questions not only their methods but their right to being. The oldest established forms are called upon to furnish reasons why they should be longer permitted to exist.

When discussion and criticism depart from their legitimate path, they may become destructive. Irreparable injury may then ensue. When conducted in proper channels, discussion is of the greatest value. Based on mere hypothesis, on individual opinion, it usually leads to false and profitless conclusions. When it makes deductions from broadly established principles or examines the results of experimental inquiry, the fruit is good.

Discussion should be guided more along the pathway of observation and investigation and less in the dizzy whirl of assumption and conjecture. It has been shown that the schools of deductive philosophy, in their endeavor to establish first principles, reasoned in circles. They were ever repeating themselves. After years of laborious toil, the point of departure was again reached. Their method was lacking in the element of verification. Much of the discussion of to-day partakes largely of this incompleteness. In its ultimate analysis, education is found to be an inductive and a deductive science. An English authority (Encyclopedia Britannica) says: "It is plain that the science and art of teaching will never be established on a firm basis until it is organized on the model of the sister art of medicine. We must pursue the patient methods of induction by which other sciences have reached the stature of maturity. We must place education in its proper position among the sciences of observation."

In scientific investigations men start out with a working hypothesis which is oftentimes suggested from the most trivial occurrence, as the dance of a kettle-cover or a fall of an apple. The first step is the verification of the hypothesis. For this work long and laborious search, conducted on the inductive method, may be requisite; or the attempt to verify may fail altogether, either because the hypothesis is not true or from a lack of necessary data. In

the latter case the discovery of a new truth and the deduction of other truths from it, may be lost to the world for years. One essential condition, then, of progress in any science is an extensive collection of facts.

For the advancement of the science whose interests teachers have nearest at heart, most voluminous data, both in natural and in formal education, many of them trivial and seemingly unimportant, need to be collected and recorded, on some systematic plan, for purposes of reference and verification. This study of child-nature, on an inductive basis, has been prosecuted to some extent, chiefly in the field of natural education; but a very large field of unexplored territory still invites investigation.

II. The absence of any regularly appointed educational tribunal whose duty it shall be to investigate and decide controverted questions.

There is need of some kind of a pedagogical supreme court whose findings, in accordance with the light that is, shall be final. In law, in theology, they have their supreme courts. It is the delight of a member of the legal fraternity to be able to cite the ruling of a court that makes valid the position he is advocating; it silences further opposition on that score. Time is saved and progress is hastened. Since Judge Cooley rendered his decision in the Kalamazoo high school case, we have heard very little about the illegality of high schools in the State. It may be objected that in jurisprudence a fixed code of laws has been established by which all cases may be decided; while in education this standard is not circumscribed by definite lines. To this I reply, the statutes are progressive and subject to constant revision. In educational matters it is necessary to decide by virtue of the criteria that we possess. Psychology, ethics, sociology and the other sciences have certainly supplied first principles, adequate to settle, beyond dispute, many questions which are agitated in teachers' gatherings and in current literature in tedious and useless debate.

The lover of fixed principles grows despondent when confronted with the never-ending jangle of disputants. One who sits in high places exclaims, you must make work pleasant and agreeable to the child. This cry is taken up and repeated on every hand with great acclamation; but it is met with the reply: "What is called attractive work is a chimera,—a chimera because the results of the work are not worth what they cost, and dangerous because the child's natural energy is deceived by a pretense of efforts for which he does not allow himself to take much time." (Monsieur Greard). Another in the innocence of his heart claims that the object of primary reading is to impart information and ridicules the empty sentences of the text-books; but he is rebuked with the exclamation, thou fool! dost thou not know that to furnish the child with an instrument, a tool, is the great end and aim of instruction in primary reading? The advocate of humanism would have all children thoroughly instructed in languages, in the belief that these are the *summum bonum* in the curriculum of knowledge. He needs to be reminded that the scheme of education of the Greeks did not provide for instruction in the languages and yet it produced "the most gifted and most attractive nation that ever lived on the earth."

That process of mental stuffing which has been suggestively termed "cramming" has able friends and equally able foes. The latter denounce it as the great curse of the school system; the former say: "We would have the pupil learn how to cram. The physician in active practice crams. The lawyer's preparation to try a case is only cramming." They claim that this gathering

up of the faculties for a prolonged effort is a good preparation for life. After an examination of such conflicting opinions what conclusion can the bewildered seeker after truth arrive at? There is no tribunal to whom he can appeal, at least he knows of none. There is no reference volume at hand wherein he may find light. He is never long in doubt respecting the pronunciation of a word, for Webster is easy of access. He hears no controversy over the question of the rotundity of the earth, for an authority on that subject lies on the desk of every school child.

That competent compiler who shall embody in one work a dictionary of axioms and principles of the science and art of teaching, will do a grand service to the cause of education.

III. The third limitation that I name is the fictitious element in education.

The teaching exercise abounds largely in supposition and imagination. The learner has to do with make-belief, pretence. He is ever called upon to solve problems beginning with the hypothetical "if," to indite letters to the man in the moon. School life is not real life; it is parenthetical. Time spent in the school room is a sort of Rip Van Winkle sleep. Real life is attended by real experience, by consequences which always bring their own rewards or punishments. It is not thus in school life. To compute the interest on an imaginary promissory note in a school-room is one thing, upon an actual note in business relations, quite a different thing. We require pupils to make out bills of sale, to issue cheques and drafts, to enumerate the precautions necessary to escape disease, and so on; but this is all unreal. It is not individual; it is not life. A sense of irresponsibility grows out of this condition of things and pupils become indifferent as to the consequences of error in computation or execution. A misspelled word or a false multiplication is easily remedied; it is not thus with a board that is cut too short. Before children will give their best energies to a subject, for them it must have special interest; it must mean something by being accompanied, in some form or other, by personal responsibility. Let me illustrate. We have before us a commercial school. Let us enter it. We find that after preliminary instruction in the science of accounts and in business principles, the pupils have entered upon a so-called actual business course. They each in proper form have leased desks which answer as their respective places of business. The teacher of the department supplies each pupil with a certain amount of fictitious money for which the latter pays genuine United States currency at the rate of five dollars per thousand, with the privilege of of redeeming the amount thus expended with psuedo currency at the expiration of the business course. It is the endeavor of each student to achieve the highest business success and to close up his accounts with the greatest possible cash balance. If he be a gainer or loser to the amount of two thousand dollars, he realizes that the personal result is a profit or a loss of ten dollars. With this consciousness ever before him, what becomes his mental habit? We remark that every computation and transaction is made with the utmost care. He counts his piles of currency and packages of merchandise, not once or twice, but many times or until he is positive he is correct. He is intensely in earnest. These transactions have become personal matters. He says what he means and means what he says. Words now become filled with meaning and we have what I conceive to be one form of the combination of words and things that Comenius insisted on so strenuously. That reformer maintained that the teaching of words and things must go together hand in hand. "We must conclude," says an educational authority, "that it is in the acceptance and

development of this principle that the improvement of education will in the future consist." (Oscar Browning.) The antithesis between words and things admits of a three-fold interpretation: 1. It may be between material things, the "solid" things of Milton on the one hand and abstract ideas on the other. 2. It may be between ideas used in the sense of things and their symbols, words; or 3. It may have reference to the learning of words by rote without any connection with the things or ideas signified. (R. H. Quick.)

Under the head "things," then, are included not only material objects but also ideas, thoughts, and whatever else is represented by words.

Whether the humanistic or the realistic subjects possess the greater educational power is a question which has given place to this greater one: How shall these forms of education be best taught in combination. The public school system, technology in the public school, and similar topics show the trend of the educational thought of the day. The introduction of the real, of "things" in the broader acceptation indicated above will necessarily tend to supplant the fictitious element and will be attended by the element of personal responsibility. The superior training that attends the education of the hand in unison with the education of the head may be shown by comparative examination of the discipline received in the country and that in the city or town.

Statistics reveal to us the fact that three-fourths of our great men come from the farm and the work-shop. We shall not have to seek far for an explanation. It is not due to superior mental capacity. There is no evidence to show that children born in the country are endowed with greater intellectual gifts than those reared in city or town. In farm life the child is thrown into constant contact with things. It is his province at regular and stated periods to perform a multitude of duties which involve a certain amount of personal responsibility, and often much tact and ingenuity. His time outside of school hours is quite fully taken up with acts of labor, and habits of attention and application are cultivated. With the boy reared in the city it is quite different; especially if his parents be wealthy or in moderate circumstances. He plays while his country cousin works. There is nothing for him to do except to play. There are no horses to be driven to the harrow, no cows to be brought from the pasture, no bars to be repaired, no boxes to be made. In his youth the country boy acquires the power of forcing himself to the performance of labor, however unpleasant and wearisome it may be. With this power at his command and strengthened by habits of attention and application, he excels both in the city school and in the race of life.

The essential difference between these two forms of education is this: The instruction of the school is supplemented in one case by a training in the industries of manual labor; in the other, it is not. Herein lies the explanation. How can we refrain from concluding that the education of the schools is an incomplete circle which needs to be rounded out by the substitution of the real, of "things" for the fictitious?

IV. Another most serious limitation is the prevailing scepticism as to the validity of the claim that education is a science and as such is deserving of special study.

Nearly sixty years ago a movement was inaugurated in Great Britain to give teachers a professional training from a scientific standpoint; but it found little favor with either the government or the colleges. In 1862, Professor Pillows announced to the government his desire to contribute five thousand pounds sterling toward the founding of a chair of education in the University of Edinburgh. Mr. Robert Lowe, then minister of education, boldly

iterated the dictum of Dr. Johnson, made years before, that "there is no science of education," and this magnificent offer was lost to the cause of educational progress. Had it been supplemented by the government and the chair established at that time, there can be scarcely a doubt that the first chair on this side of the water would have been filled fifteen years ago, and to-day we should have not four or five professorships of education but a score.

Six or eight years subsequently an offer of ten thousand pounds was made to aid in the founding of two chairs in Scotland, but it was rejected by the authorities. It was not until 1872 that the council of the College of Preceptors of London, after waiting to no purpose for action by the government or universities, appointed the first English professor of education.

After all these years of struggle and waiting, it is settled as far as a small enlightened minority is concerned, that teaching is a science having for a basis philosophical principles. But to educate and, therefore, to convince the great mass of the people of this fact, in the near future or in all time, appears at first sight to be an almost hopeless task.

Educational progress is from the college to the primary school. Those in the higher walks must lift those who are below. The order of knowledge is from the informed to the uninformed; like light it radiates in all directions and illumines dark places. Therefore educating centres are necessary. On these principles, it has been strongly urged by the ablest thinkers that all students in the arts course and all professional students in our colleges should receive instruction in the history and philosophy of education. An oft-quoted authority declares: "No rational plea can be put forward for leaving the art of education out of our curriculum. * * * The subject in which the education of every one should culminate is the Theory and Practice of Education." It may be added that graduates in the courses alluded to above have the greatest influence in the control and management of primary instruction. Thus the public schools would be elevated above their present status.

This scepticism prevails in a quarter where its presence might be least suspected. The criticism made by teachers themselves upon efforts to impart some instruction in underlying principles is often loud and long. "Impractical," "too far up on the heights," "shooting over our heads," and like comments indicate the reception with which they are met. One is often surprised to hear expressions if not of ridicule and contempt, at least of disparagement for such teaching from those well up in the ranks.

For a barrister to be unacquainted with the works of Blackstone and Coke, or for a physician to know nothing of the teachings of Galen and Harvey, would be deemed unpardonable; but teachers regard with the utmost complacency their own ignorance of the theories and methods of such writers on education as Aristotle and Quintilian, Milton and Locke. What per cent. of the teachers of Michigan can name the paradoxes of Jacotot or the titles of the chief works of Comenius? All teachers can not become masters of their art. That consummation would involve impossibilities. On the other hand, none can become accomplished teachers without an acquaintance with the principles of didactics. In my humble opinion, no prerequisite could be added to the list of qualifications for all teachers, that would bring greater personal benefit to its possessors, or stimulate a more earnest desire to compass the purpose and nature of education, than some knowledge of the history of educational theories. No sufficient reason exists why all teachers should not be required to be conversant with the methods of the most noted practitioners of their art.

V. The last limitation named here is the coarse materialism of the day that

makes all learning a means of money getting. Want of time forbids more than the mention of this spirit which is inimical to the prosecution of learning for its own sake.

In his masterly address delivered at the annual commencement of the University of Michigan last June, Bishop H. C. Potter handled this subject in a delightful manner. He said: "And to these has come in all ages that which is the best reward of the scholar, not a fact to be hung up on a peg and duly numbered and catalogued, but the vision of a truth to be the inspiration of all their lives."

ADDRESS.

TECHNOLOGY IN THE PUBLIC SCHOOLS.

BY CHARLES O. THOMPSON, PRESIDENT OF THE ROSE POLYTECHNIC INSTITUTE.

What is technology? It is the comprehensive term which includes all applications of the principles of science to the industrial arts. When the word reappeared after a long absence from lexicography, in Webster's first edition (1828), it was just passing over from its old sense in which is vaguely described the arts themselves, and this change of meaning is cotemporary with the growth of the steam engine, the principal agent in the revolution of the arts. Technology in its highest meaning includes engineering; in its lowest the simple manual arts.

Schools of technology are known by many names; in the higher fields there are scientific and polytechnic schools, and institutes of technology, all often called technical schools; in the lower, manual training and industrial schools. This term industrial, by the way, applied either to school or education is fast losing a certain somewhat odious suggestion of prison reform, and now often means the teaching of such trades as are likely to aid the learners in earning a livelihood.

The first institution in this country to be devoted to engineering was the United States military academy at West Point, founded in 1802, but first a living force under Gen. Thayer in 1817. Here the principles of science are applied to the art of war; the Rensselaer polytechnic began in 1826 to apply them to the arts of peace. The Sheffield scientific school in 1847, the Lawrence in 1848, and the Chandler in 1852 sought shelter under the shade of the college, where the atmosphere has been found a little chilly.

Then followed the act of Congress in 1862 to found colleges of agriculture and the mechanic arts, under which technological schools of all grades arose and grew apace.

In all the great schools that began before 1868, there were collections of apparatus and models, drawing-rooms and laboratories for the proper teaching of practical science, but there was no workshop worthy of the name. The mechanic arts were the last to be recognized in schools of engineering. The first school to embody in the course a thoroughly equipped and genuine workshop was the free institute at Worcester, Mass., in 1868. By a singular coincidence the celebrated school at Moscow, Russia, opened her doors in the same year and on the same plan. The graduates of both these schools were expected to enter shops as journeymen, if they chose such a calling, and everything that was made was made to appear in open market.

Since 1868, the year in which the schools at Moscow, Russia, and Worcester, Mass., were opened, more than $10,000,000 have been given by private citizens of the United States to found independent schools of technology.

Following the example of Lavallee in France who presented to his government the Ecole Centrale equipped from his own resources, Stevens in Hoboken, Lick in San Francisco, Case in Cleveland, Boynton, Washburn and Salisbury in Worcester, Miller in Albemarle, Lewis in Chicago, Rose in Terre Haute, and many others, all typical Americans, made no demands upon the public treasury, but set upon their judgment of the kind of education most needed by the times, the seal of their magnificent endowments.

Eight years of patient experiment under very favorable circumstances sufficed to show that the workshop, expensive as it was, must be regarded as a most important if not an essential factor in the training of engineers. At this point the institute of technology of Boston opened a new two years course in a school of mechanic arts, the leading thought of which was to exclude the constructive or manufacturing feature, and teach certain generic forms of handicraft. The graduates were expected to enter shops as apprentices. Nothing made in the shops was to be sold, and no importance was at first attached to assembling the parts of machines.

The workshop thus relieved at one stroke of all that embarrasses a real workshop, and carried on regardless of values of time or of material, seemed very attractive and the experiment has been repeated in many places.

Workshop Instruction.

It would be improper to enter at this time upon a discussion of the question of workshop instruction with construction and without it, but there are two difficulties with the latter plan that occur to a practical mind. If a boy works in a shop where he pays no heed to the amount of time he puts into a piece of work, or the value of the material used in it, is he not in danger of training himself out of all fitness for service in a real shop where values are among the vital matters? To fix the relation of work to values would seem to be one of the most important functions of a school workshop. A pupil either does his work with a clear perception of its relation to manufacturers, or he does not; in one case he works toward the business of life for which he is in training, in the other he works away from it. If a boy forms the habit of disregarding the amount of time he puts into a piece of work and the cost of material, he may be acquiring some skill as a craftsman, but he is liable to find himself upon entering business entirely out of gear with the laws of that business. He must learn the control and management of labor-saving machinery, and make it *save* if his shop training is to serve his purpose to succeed in life. His labor must become part of the world's capital if he becomes a successful citizen of the world.

The other difficulty is to know how selling a piece of work can be other than a most respectable, encouraging, and useful proceeding, and how one is to know by any other means whether the thing he has made is fit to sell. These points cannot safely be passed without notice, for, as I shall try to show, the school workshop has no function except to prepare youth for some form of labor in the mechanic arts; and, if it should turn out that only a shop in which manufacturing and selling are done is fit to prepare boys for such labor, the expense of such a shop would be a serious element in the question of its general advisability.

What it Costs.

It cost $35,000 to furnish the shops of the Rose Polytechnic, and they are not provided with anything superfluous. But as these shops are planned to carry boys through a complete course in engineering, let us make a modest estimate of the expense of erecting and maintaining a workshop for 200 school boys. It will cost $8,000 to $10,000 a year to run such a shop. To this add $1,000 to cover inevitable wear of machinery and tools. The original cost of tools and machinery, including engine, cannot be put at less than $5,000. Adding interest on this sum and the cost of the necessary building to the cost of the equipment, we are obliged to set down the annual cost of the shops alone at a minimum of $10,000, or $50 a scholar. This expense is small if great advantages are assured, but too large if the results are at all problematical. In view of the large expenditure which must be made in the common school, the taxpayer has a right, I think, to await the broader results of the experiments now in progress before he adds so large an amount to the annual budget. But the force of this reasoning is evaded by erecting an entirely new claim for manual training, viz.: That it is a culture-study of universal usefulness and therefore should enter the public school.

That there may be no confusion in our inquiries into the value of manual training in a school workshop, let us emphasize the fact that it does not include, either in theory or practice, any of the systems or devices which are employed in teaching children by the kindergarten or the object method. By whatever means children can be best taught to perceive accurately, imagine vividly, and express themselves clearly, let those means be used. In the happily-chosen phrase of the day, let them learn all they can learn to do by doing. The amount may turn out to be less than some suppose to be possible.

During the short period of six years the manual training hypothesis has passed through three distinct phases.

1. It was proposed to set up a work shop in every grammar school, but it was found that children are in school but three years on the average—a short time to learn all that is admitted to be essential to common intelligence—and that the State cannot undertake the teaching of specific trades in the common schools without manifest injustice to somebody. And it was apparent that complaints against the schools for not doing the old work well cannot be silenced by putting upon them work which is both new and strange.

2. It has been suggested that optional high schools, into which work-shop instruction should enter, are needed; and in support of this scheme it is urged that there are certain generic features in all manual arts which a boy can learn in school just as well as he learns his arithmetic there in preparation for business.

The Plan is

To offer to boys who have finished the grammar school and desire instruction in the mechanic arts, a two years' course, on the half-time plan, in which one-half of the time shall be spent in study and the other in the work-shop.

That such schools are good cannot be denied, but it is not clear that they are entitled to existence at public expense—for although any manual training is a good thing and its results very handy, it may not be the best thing for the average boy. Optional schools are clear of many of the objections that have been made against general school work-shops, yet we must still ask why they should be added to the school system? The presumption certainly is that

such institutions belong to the class of professional schools which, according to the genius of American laws, should be sustained by invested funds and managed by corporations. But many reasons are urged in favor of State control, and some of these I will consider:

1. It is as fair for the State to teach the elements of mechanical knowledge as of the professions.

The public school does not undertake to teach the elements of the professions; it teaches the elements of knowledge which the subtle chemistry of the social body transmutes now into the learning of the philosopher, and now into the intelligence of the artisan.

2. The State Universities teach the professions, and why not the trades?

The State University is not a universal feature of public education, but it must certainly be as fair for this institution, when it exists, to teach trades as professions. It stands on the same plane as endowed institutions in other States. We are speaking only of the common schools.

3. Boys will be allured to the mechanic arts by means of work-shops in their schools.

Considering the significance and increase of Trades Unions, the amount of over-production of everything but food leading to strikes, "lock-outs," "shut-downs," etc., it is certainly a fair question whether boys ought not to be allured away from the shops.

Do the mechanic arts need the aid of a school work-shop to increase their attractiveness? What assemblage of mechanical processes could be made in any school building that could compete with the exhibition which every large town presents? The air is lurid with the smoke of furnaces; every stream is worried with dams; the din of machinery sounds an incessant call; thousands of workmen go as daily messengers between shop and home and make familiar in daily speech the marvels of mechanical achievements. This spectacle is not limited to a few hours of a crowded school-day, but day and night are filled with it.

Libraries abound in biographies of the great inventors. Every thoughtful boy can feed his imagination on the stories of Arkwright, Whitney, and Bigelow. This is the real developing school. This face to face communion with men excites the boy more than lathes, and engines and spindles. The trophies of Miltiades will never permit a young Themistocles to slumber.

The mechanic arts will have unskilled recruits enough without any help from the schools. We may safely leave skill in handicraft to be its own nurse, and whether or not the American artisan be inferior to the Greek, the school must see to it that he remains, as he is, a superior kind of man.

Though the experiments in the manual training schools now in progress are not complete enough to furnish conclusive evidence, yet it is worth notice that of twenty-nine graduates from the best of them, ten are now working with their hands; that is, the same proportion of the class as of the community at large have sought handicraft, for about one-third to one-fourth of every dense population work with tools.

4. Boys take a great interest in tools, as for instance in summer schools.

So they do in boxing, fencing, etc. Occasionally, but rarely, the interest becomes contagious, and wakens dormant intellectual energies; but it is more likely that this zeal in tools will be mistaken or substituted for zeal in the acquisition of knowledge.

5. Boys trained in school-shops, though they can not become skilled mechan-

ics, can acquire skill enough to take precedence of raw hands in the strife for places.

A large acquaintance with the wants and wishes of employers in shops and factories justifies me in saying that this hope is not well founded. Of two boys, otherwise of equal merit, one of whom had spent his last two years in a good school with a work-shop, the other in a good school without a work-shop, most employers would prefer the latter. The man who is about to employ an unskilled boy inquires into his character and his capacity to learn his business, and the tender of a smatter of tools would be a disqualification in the mind of many a man, because it would argue a certain assurance of knowledge which the boy could not possibly possess; and this assurance he might not overcome. The man who employs men in shops wants each one to learn as soon as possible, if he does not already know, how to do the one particular thing needed, and to remain doing that as long as possible; hence, looking at the side of the employer or of the employed, it is better for the latter to secure all possible knowledge, such as the school can give, than to anticipate, at the expense of this knowledge, the labor of the shop. But there is

ANOTHER MORE SERIOUS OBJECTION

to this argument for school-shops that has not yet been met at all. Why should manual training, at public expense, be restricted to the use of carpenters' or machinists' tools? It is answered, "A hammer is a fundamental tool." So is a trowel. The chances of getting employment are rather better for a mason than for a machinist. It is probable that the average citizen uses a hammer far oftener than he uses a trowel; but we are not now speaking of what is handy for him to know, but of what is essential. It is not yet known what natural or reasonable limit can be set to the trades that should be fostered by a school which is maintained at public expense for the benefit of all citizens.

I know that some effort has been made to show that the elements of trades can be taught in a certain generic way, but the experiments in progress to demonstrate this are not yet conclusive enough to warrant the public schools in relying upon them.

6. Manual training in the public schools will turn the minds of boys towards Polytechnic Schools, and so promote the new education.

I do not see why it will. If the advantages of a technical course are not strong enough to draw students, it is not easy to see how they will be strengthened by teaching them handicraft in public schools. The polytechnic would not suggest such a change. It is very clear that her work will be rendered more efficient by better work in the preparatory schools of the kind they are now doing. What the polytechnic can do for boys depends upon what they bring to her door almost as much as upon what they draw from her stores.

These difficulties having proved insurmountable, the third phase of the idea of a public manual training school has lately appeared. To this, allusion has already been made.

In the words of a distiguished advocate of the plan: "We limit our expectation of advantage to the manual dexterity and aptitude which would be acquired as a means of training and equipping the mind and will for the duties of life."

That is to say the workshop is urged as a culture study, of great dynamic energy, and not at all as a direct step towards a livelihood.

To see whether this claim is well founded it is natural to inquire, What is the

pedagogic value of a workshop? What are the psychic activities of a boy who is undergoing its discipline? And are these activities better stimulated and nurtured by the shop than by ordinary school appliances?

There is some difficulty in finding true answers to these questions,—a difficulty inherent in the nature of the subject, but it may be said that, in a shop, a boy works from a model. He forms percepts by an analysis of the shop-objects. He afterwards forms concepts. Hence he observes and compares, practices analysis and synthesis. If he is taught construction, and reproduces his model, he compares part with part and with the whole. But these processes are already familiar to him, and, when he makes a square frame for instance, if he be well taught, he makes sharper discriminations than he has been accustomed to make. This is what training the eye means. The hand is at the same time taught to follow the command of the eye. Now suppose the same boy to be taught to make a true drawing of a square. He must study his model as attentively as before, must make the same analysis and synthesis. He must then represent rather than construct the form. This is a form of training which the shop-work does not give, but it involves a greater exercise of the judgment than is involved in shopwork.

Then the eye and the hand execute the mandate of the will and the drawing is done. If there be any exercise of the imagination in either or both of these cases, probably it is about the same in both.

It is said that the boy learns in the shop the inexorableness of law; the incongruity of the round peg and the square hole is a powerful incentive to excellence; but he finds the laws of numbers quite as inexorable and the satisfaction of mastering them a vastly stronger incentive.

The desire to excel is stimulated, of course, by excelling, but the pleasure which results is proportioned to the nature as well as to the intensity of the effort; the successful gymnast is by no means as great a victor as the successful astronomer, nor he as great as the conqueror of himself. All the ethical virtues seem to be much more generously cultivated in the school than in the shop. It is difficult to see what form of mental activity is produced in the shop that is not more vigorously stimulated in the drawing-room.

If it be urged that the boy in the shop gets used to handling tools and machinery, the reply is that this advantage is excluded by the hypothesis that the shop is to be used solely as a culture study.

And I will add that the ordinary school methods and appliances, if used with the same tact, enthusiasm, and power that are displayed in the new manual training schools, and applied to boys selected according to their natural aptitudes, would show results that would astonish those who think of improving the public schools by the weak device of adding something to their labors, instead of putting life into their management.

The conclusion to which we come is that shop-training has some pedagogic value, but far less than the ordinary school appliances; but fortunately we are not left to the uncertain resource of balancing the values of school methods; a great epoch of history supplies unexpected and important aid in settling this question.

During the middle ages when education was the perquisite of the few, manual training was carried to a height of unprecedented excellence. Art smiled upon the industrial arts, artist and artisan worked through the same cunning fingers, turning wood, metal and stone into forms of such beauty that the museums in which they are stored draw annual throngs of visitors to study and admire them. The meanest utensils of the kitchen wrought by

the hands of those marvellous smiths and masons are worth many times their weight in gold. Manual training did its utmost. Yet those were not good times for the average man, and very bad times for the average woman. In those dark ages, superstition was the religion and the education, liberty fled to the inner recesses of a few great souls, tyranny reigned, and the masses of the people were its unreasoning, wretched tools. Now if there were any virtue in manual training *per se*, any force which is convertible into character, any great or striking pedagogic value, the intelligence of the people of Europe should have increased a little as the fourteenth century wore so heavily away; but in fact the darkness grew denser up to the dawn of the reformation. Not till printing opened books to all eyes, and the light of Luther's Bible shone into them, and education became the heritage of the many, did men begin to rise in intelligence and virtue.

After three and a half centuries more, during which the arts declined and learning spread, the steam engine appeared—by far the most influential of all inventions. Of all the marvelous consequences of the idea of James Watt, there are two of preëminent importance: The manual arts were doomed to give way to machinery, and the universal diffusion of knowledge became possible.

We have in these times, in consequence of these events, in place of the skilled artisan of the Middle Ages, the intelligent mechanic—intelligent by reason of a free common school. He is a citizen on whom free institutions may safely rest.

A few years ago, during the Pittsburg riots, I happened to be living in a State whose people depend largely upon manufactures for their bread. There were precisely the same reasons for riot in Fall River as in Pittsburg, viz.: hunger and cold; but in the one city there were mechanics with the intelligence which the free schools of Massachusetts so assiduously cultivate; in the other, mechanics largely of foreign origin, destitute of this intelligence. But while the mob in Pittsburg were committing acts of unparalled barbarity and lawlessness, the men of Fall River were displaying the heroism of patient endurance.

If anything is plainly written on the face of history it is that while the apprentice system and the manual arts lasted, there is no evidence that the standard of virtue of the long generations of artisans who rose, toiled, hoped, and vanished, was raised by their craft, but that the common school, allied with religious forces, has done the principal work in improving the morals of modern society.

Why then are we reaching back into the Dark Ages after a discarded culture that did so little then and can do less now, when the methods of the modern school have only begun to unfold their incalculable force?

I may be permitted to enforce this broad lesson of history by reciting a bit of personal experience. At the Worcester school there used to be large divisions of civil engineers and of mechanical engineers in each class. The mechanics had eight months of practice in the shop before the civil engineers began their practice in the field. All these students entered the Institute by the same examination, which was so strenuous as to turn back nearly as many candidates as were admitted.

Now, observing these picked men side by side, in daily recitations and semi-annual examinations, I was unable to discover that the mechanical engineers had any intellectual advantage over their classmates.

Much stress is laid by some advocates of the new doctrine upon French examples, and it is well to glance at the state of technology in the public

schools of France, and for convenience we may admit that Paris is France. In that city there are two sorts of institutions in which manual labor is taught.

1. The private apprenticeship schools, which are managed either by great corporations, as Messrs. Chaix et Cie, in the interest of their employés, or by the Christian Brothers, as the Ecole St. Nicholas in the Rue de Vangivard.

2. The public apprenticeship schools like that in the Boulevard de la Villette, and, not to specialize too much, the famous communal school in the Rue Tournefort.

Of the first kind there are but few, but some of them are of great size and merit. That of the Christian Brothers, including branches at Issy and Igny, contains 2,400 pupils; that in the Rue de Vangivard has 720 ordinary scholars who never visit the workshop, and 250 apprentices who do. All these are boarders. They pay an entrance fee of $10 and an annual charge of $84 for board and instruction. They must know reading, writing, and elementary arithmetic before entering. The apprentices, (not the ordinary scholars), at the age of fourteen receive instruction in school two hours a day, and work in the shops eight. They are taught such trades as book-binding, mathematica instrument making, type setting, printing, gilding, joinery, wood-carving, map-engraving, and engine-fitting. At the end of three or four years, they are recommended not as having an equal education with the ordinaries, but as good workmen, and the amount of wages earned is given by the Brother in charge as incontestable evidence of the soundness of their training. A list is kept at the school of all the graduates with their occupation and wages.

Of the apprenticeship schools maintained at public expense there is a large number, but all are organized on substantially the same plan. What the organic idea is in them may be seen in the report of Senator H. Tolain, President of the Commission to whom the whole subject of industrial education was referred by the authorities of the city of Paris. He says, "That in consequence of the virtual abolition of apprenticeship in most trades, and owing to the specialization and sub-division of manufactures resulting from the introduction of machinery, the number of skillful and intelligent workmen in all branches of industry and art manufacture has decreased, and that the standard of technical knowledge has been lowered. This has been especially prejudicial to French manufactures, the distinguishing merit of which has consisted in originality of design. The remedy for these evils will be found in apprenticeship schools, the object of which should be mainly, not the creation of foremen, but the theoretical and practical education of workmen proper."

In determining what trades shall be taught he excludes tailoring, because boys can still learn that of tailors, and proceeds to group the essential industries of France in three classes and to recommend a school for each, as follows: In the Faubourg St. Antoine for the furniture trades; in the south of Paris, on the plan of La Villette, for the building trades; and in the center of Paris for the small machinery trades, such as surgical instrument making, etc. In each school as many trades belonging to its group are taught as possible.

Mons. Tolain also recommends similar schools for girls, where they may learn the trades appropriate to them and also be instructed in cookery.

Now, as La Villette is a typical school on this plan, let us see how the plan is carried out.

The course of study occupies three years. The hours of compulsory attendance are from 7 A. M. to 7 P. M. six days weekly, with optional work Sundays.

The average age of the boys now in attendance is fourteen.

The hours in the work-shop are six daily during the first two years and eight daily during the last year.

In the first year all the boys are taught the nature and conversions of material, in the second they pass to actual construction. The choice of a trade must be made by each boy at the end of his first year, and all his subsequent practice has reference to that trade.

After leaving school the boys seek the occupations for which they have been trained, and M. Grèard, in his cyclopedic report on primary education in France, cites as proof of the excellence of this school the fact that "Of 74 graduates, 69 have remained loyal to the profession which they studied in school."

The French manual training schools, then, are designed and managed in the interests of specific industries. The time devoted to shop work in the first year is six hours a day in addition to another equal amount devoted to study, and in the second and third years the time given to study shrinks to four hours; and no pretense is made in any report to which I can get access, or by any responsible official with whom I have conversed, that any special pedagogic value is attached to the work-shop instruction.

These schools may fairly enough be maintained at public expense, because each one is in a center of capital or of population, and the industries are taught with a well grounded expectation of an increase of revenue from the skill of those who learn them.

It would seem that the conditions of society in this country are so vitally different from those in France as to prevent the successful adoption of French methods of industrial education in our public schools.

The schools of Sweden are often referred to as having successfully taught trades, but the least investigation will show that these schools cannot be cited in support of the doctrine which we are now discussing.

It appears then that neither philosophy, history, nor experience sanctions the proposition to teach handicraft to boys as a means of culture in public schools. If manual training schools have any mission, it is to teach the mechanic arts in such a way as to give their pupils better chances for gaining a foothold in the crowded area of our manufacturing industries. These schools have been successful in this country and they ought to be multiplied. In every large city there are boys enough who desire to follow mechanic pursuits to justify the founding of a manual training school for their benefit, and the phenomenal gifts of money already alluded to afford the best of reasons to believe that technological schools of all grades will be provided as fast as they are needed by wise philanthropy of men who prefer this way of using their property for the welfare of their fellow men.

There is another matter to be thought of in the lives of the artisans of this country, and that is that handicraft occupies an ever-narrowing machinery, an ever-widening domain.

The Pride of the Artisan.

With the practical extinction of the independent manual arts, especially those that were essential to the comforts of daily life, the just pride of the artisan in the work of his own hand, a most important social force, has vanished; in its place we have chiefly machine-tending. Not that there is not some stimulus in watching machinery, and that now and then an invention may be suggested to a sympathetic mind; but that is not an equivalent for

what has been lost. The feeling with which a skillful watchmaker contemplates the equable motion of a timepiece, every part of which he has himself finished and adjusted, is very different from that of the man who sets and guides the machine which delivers a hundred gears a minute, or does his one part in assembling and adjusting the parts of a watch as they come from many machines. In one case the man has put a part of himself into his work; in the other he has put into it so many hours of his time, well aware that a small amount of training would enable any other man to do as good work as his. The watchmaker may outstrip his best predecessor, and to do this strains every nerve, practices patience, watchfulness, courage, and faith; the watch-producer soon reaches the level plateau of his life, above which there are no heights, for the machine does the work. His life becomes monotonous, and out of this monotony spring special temptations. The more he knows and the more he becomes good company for himself, the better he is.

I am not forgetting that skill in handicraft is not absolutely extinct, but am urging that its field is so narrowed that the masses are no longer found there for whom the public schools must care. The great majority of boys who go from school to shop swell the ranks either of unskilled laborers or of those whose life is spent beside machines.

The suggestion of manual training in the public school arose in response to a rather vague demand on a part of a portion of the people that the teaching there should be more practical. The demand is founded on justice, but, because so founded, it cannot be met by any temporary devices. At best, the workshop can help only the boys, who, as things go, need help less than the girls. If I were to urge any experiment in industrial education, and driven to the unpleasant admission that some things must be done in school which used to be better done in the family, I would certainly begin with a cooking school for girls; for there are many facts obtained by careful inquiry in the families of wage-earners which tend to show that their pecuniary and moral welfare can be directly and largely increased in this way. This result cannot be securely predicated of any form of teaching the mechanic arts which has been proposed.

The thought has often crossed me that we may have entirely mistaken the measure and the motive of the popular demand for reform. My ears are not sharp enough to hear distinctly any call for manual training in the schools; but I do hear, in very clear and unmistakable form a demand that the number of topics shall be lessened and the thoughtfulness of teaching increased. The demand for more manipulation, more practical familiarity with fewer things, has been construed into a demand for manual training. People are not pleased with smatter, but are always satisfied with mastery. There is a judgment uttered in Scripture against these who heal the hurt of the daughter of the people slightly.

If I were to suggest any change that might be advantageously made in the studies of the common school it would be that time can be found in the grammar schools by revision of topics and methods for teaching at least the six mechanical powers. The necessary apparatus can be bought for $20.

All school officers are studying also the best way of using the natural history sciences in the lower schools—a most promising field of inquiry. For what is the best and justest and kindest to give the children of the masses in our schools? A little manual training which cannot help them in any large way, so little it must be, or as much knowledge of books as possible, which will draw them to libraries instead of to grog-shops in their evening lonesomeness;

as much knowledge of natural history and drawing as possible, which will enable them to find companionship in nature, and look without a stupid stare into her "unwithered," kindly face; as much knowledge of the great examples of history as possible, to persuade them always to look up; as much knowledge of themselves as possible, that they may be able to bear adversity with courage and prosperity without exaltation?

Considering how short school is and how long life is, is it better to emphasize the mechanic or the man in the child? It is pretty certain that the attempt to do the one will fail, to do the other may succeed.

If all the 20 per cent. of the boys and girls who enter the grammar school can leave it with a knowledge of arithmetic that will stand the test of a promissory note, a plain problem in percentage, the addition of five columns of figures of forty each, mainly sevens and nines, with answers absolutely correct, with the ability to write an intelligible business letter and read aloud the evening papers so distinctly and so pleasantly that plain people can follow them without too much effort, with the ability to tell a good book from a bad one, with knowledge enough of geography to find the place on the map where the last war has broken out, and locate and give the general facts concerning each of the important countries in the world with the routes of commerce and trade, and with historical knowledge enough to trace the growth of our country and tell the story of liberty, I think the voters will pay the bills without complaint.

There is room for question if this move in the direction of manual training be not an evasion of a pressing duty; for it is always easier to cultivate a novelty than to regenerate the old crops. What is wanted is better methods of teaching the essentials of common knowledge, so that the four priceless years of school life shall be more fruitful. For this the people cry out. We cannot avoid this cry by any curious debates; we must deal with the question seriously, patiently, and honestly. The work of pruning and regenerating and reforming demands more skill and courage and knowledge than a manual training school, but it is far more promising.

And this work must be done by those who are working from the center of the school system outward, and not by those who, in spite of much earnestness, evidently do not know where the center is. It is the legitimate work of educators.

PAPERS AND DISCUSSIONS.

THE RELATION OF TECHNOLOGY TO EDUCATION EXPLAINED.

By Edwin Willits.

There is no disguising the fact that a great change has occurred during the last fifty years in what is considered necessary for a liberal education. The claim for ages that the classics and cognate studies could alone confer real culture and the highest discipline has been contested by the sciences, and is being at the present time antagonized by an aggressiveness that has at last won for them the platform for deliberative discussion. Every college and university has yielded to the peremptory demand that the science shall be recognized in the college curriculum. It has become respectable to select a course that shall eliminate almost entirely those studies that 300 years ago were considered of the highest repute and shall include those that were then pursued only by heretics and supposed satanic philosophers.

Walter Scott's Master Erasmus Holliday has left the stage with his Latin prefixes, his village urchins, with his pedagogical cap or his soul-quickening rattan, with his horror of Doboobie, who was in his mind a poisoning quack salver and witchmonger, who, if he was not a bounden slave to the devil, it was only because the latter disdained such an apprentice. Doboobie himself, or his successor, with his copperas and hellebore and vitriol and aqua fortis bubbling in a witch's cauldron, is no longer a vassal of hell, and has come out of his cave with his retorts and crucibles and braying mortars into the light of day, and we have built for him magnificent "elaboratories" in which he can cook his "hell-broth" to his heart's content. He has become quite a respectable person, and we dub him Professor of Chemistry and of Pharmacy, and he has the assurance to claim equal rank at least with the doctor of musty Latin or the Greek particle, and the world is according it to him. How long this will last, or where it will end we do not know. Whether we will or not, we must recognize the fact, and in time find the philosophy in it as there must be a philosophy in it if it be permanent.

No Need of Ancient History.

But we need not go back 300 years to find this marvelous change. Within thirty years, on this continent at least, we have witnessed a revolution in educational processes and purposes. In 1852 Dr. Henry Philip Tappan, one of the grandest men who ever stood at the head of a university, was appointed Chancellor of the University of Michigan. He had been educated according

to the old school, but had left Union College with some of the personality of old Dr. Nott, had spent some years in Germany, and had there caught the spirit of the new life that German science had brought to light, and he came to our infant University, which he thought the fittest field to work out the new problem. Thirty-two years ago he stood at this desk, in the old Capitol, and expounded the new doctrine to the legislators there assembled, that in the great University science should have an equal chance and equal honor with the classics. He placed in the course of that University the degree of Bachelor of Science, which should be preceded by the same number of years of study, and should be given from the same platform with the degree of Bachelor of Arts. This was the first time it had been done on the western continent, and in my class, that of 1855, were the first graduates in that course. Two worthy gentlemen stood by my side on that sultry day in June and took their "B. S." diplomas while with only equal honor we, the remainder, took our "A. B." from the hands of Dr. Tappan. He intended it as an equal honor, they claimed it as an equal honor; I fear we did not concede the equal honor. In fact, as I recollect the sentiments of our class, we felt that it was not in the power of the Legislature, the regents, nor of Dr. Tappan, with all the witchery of his presence, to make a "scientific" the equal of a "classic."

They took Bran in Theirs.

We were quite certain they were not in this case. In the first place they were vegetarians, and we believed in good beefsteak; not only were they vegetarians, they used Graham flour, they took bran in theirs. Was it any wonder they were "scientifics?" Secondly, they believed in woman's rights and socialism and water cure; they were agrarians, free-traders, and abolitionists. Was it any wonder that they were in favor of "hell-broth?" But they were lusty, independent fellows, not altogether wrong, and took their medicine as we "classics" administered it with good grace, and I have no doubt that they have been successful. They were the pioneers in the new field, and had the courage of their convictions and faith in the future of the new pathway all untrodden by others. But, as you will see, a multitude has followed in it.

The next class had none; the next, that of 1857, had 6 bachelors of science; that of 1858 had 19, and so on with varying fortunes, now more and now less, but in the main constantly increasing in numbers and character to the present time. The calendar of the University of Michigan for 1883–4 shows that of the 423 students seeking a degree in the department of literature, science, and arts, 109 are seeking that of bachelor of science, 83 bachelor of philosophy, 61 bachelor of literature, and 170 bachelor of arts. Besides these there are in the department of pharmacy, 77.

What the Record Indicates.

This is the record, and what does it indicate? Thirty years, it is true, is too short a time to settle the question of the absolute equality of the courses and to test the effects of the mental discipline of the one as compared with that of the other, which was in full operation nearly 1,200 years ago, when the monk Adam Bede taught his 600 students on the banks of the Yarrow. It will take time to demonstrate what it will do in making great men. In the coming time when we shall have another age like that of Pericles or Augustus or Elizabeth, who is it, or of what line of study shall he be evolved, who shall make his times famous to all the following centuries? We may have our

opinion, but no one can know. This at least is certain, that so far, in this last thirty years, the bachelors of science have in proportion to their numbers held their own well with the bachelors of art, and whether in the line of teachers or writers, legislators or men of business, they have had such measure of success as shall justify others in following their footsteps. They not only claim they are as good as bachelors of art, but they have the assurance to claim the right to be called bachelors of art. They want the name. The rose by another name smells as sweet, but there is poetry and romance in the name. There is dignity and ancestral blood in the degree, and the degree they must have, and the world of letters protesting that it will "ne'er consent" is on the verge of consenting.

A Premium on Practical Science.

So the sciences are with us, and to all appearances to stay. But that is not all. One step leads to another. The sciences deal with the *non ego*, more directly with that great world outside of the personality of the individual, first with the facts and then the laws of the material universe, and thus they garner a harvest of comfort and material wealth that is so obvious and so charming and so delightful to the senses, that in this practical age we acknowledge their utility. Therefore the practical man and the so-called practical sciences command a premium. Practical men are paid the highest wages. The theoretical man who develops the principles of a science is not to be ignored, but it is the man who can apply the principles evolved by the man of theory that commands the situation. This, therefore, is the age of applied science—applied to commerce, manufacturing, and all the varied industries of modern life. The world's progress is measured by the bounds of its applied sciences and its prosperity by the amplitude of the practical arts. For this reason we have the demand that our system of education shall include both theory and its applications, and that the State shall furnish both.

The State and Higher Education.

Let us look at this phase of the subject a little while and see what it means. For ages it was conceded that the State should foster higher education, long before it was conceded it should provide the lower. Great universities and libraries and art galleries are hoary with age, while the common school is yet young. The former were the creatures of the State, the latter until recently the child of the church, the individual, or the family. The State has now taken the latter also. Great sums were donated in founding the former, still greater are now devoted to the latter. Almost contemporaneously with this change has come the incorporation of schools of science, distinct from, or in connection with, the great universities. More money, therefore, has been spent by the State in the last one hundred years in the development of science than in the culture of literature, law, and theology, the prime objects of all education for so many centuries. Voyages of discovery—geographical, zoölogical, botanical; expeditions—geographical, geological, and astronomical; the earth, the sea, and the heavens have been ranged to satisfy this craving for scientific investigation, not merely to establish a theory or formulate a principle, but to enlarge the area of commerce, to facilitate new industries. The State has had in view practical results, how the better to provide for its own wants and compete with other states in the sharp rivalry for existence. In former times conflicting nations were blotted out as Rome blotted out Carthage. Individual life was the cheapest commodity. Now national life is protected by the principle

of "balance of power," or the comity of international law, and individual life is bounteously cared for, paupers, idiots and Indians not taxed included. We are antagonizing Malthus where he said human life increases in geometrical, while provisions increase only in arithmetical ratio.

What is Deplored.

We deplore war, pestilence, small families, celibacy, and hanging for murder. The motto of the State is save life, not destroy it. Our increase from decade to decade is the boast of our statesmen, and the great question of modern politics is how the coming millions can best be made self-supporting, how they shall find food, raiment, and shelter; how we shall increase provisions in like ratio with human life.

This leads naturally and logically to schools of applied science. In the past we had schools of theology, philosophy, and law, later schools of medicine, and still later schools of agriculture, engineering, pharmacy, and more recently schools of technology, all fostered by the State or endowed by private munificence. The last, that of technology, is at the present time the most aggressive, and its field and purpose at the same time most undefined. We have well defined views what a school of law, medicine, engineering or pharmacy shall be. Its object is to teach the special underlying principles of law, medicine, etc., with just enough applied science to demonstrate the principle, leaving the practical skill to come from the practice outside of the school. The lawyer's first case is at the expense of his client, the doctor's at the risk of his patient. The object of the school of law or medicine is to reduce this expense, this risk, to a minimum, by giving the student a knowledge of the principles of his profession, so that his skill shall take the right direction. That is all the public has assumed to do in any of the professional schools heretofore established.

But this school of technology claims something more, or rather the advocates for technology in the public schools are claiming for it something beyond the scope of all other schools, to wit: the education or development of skill. I can understand and indorse a school of technology that shall make an intelligent mechanic, intelligent in all the principles of mechanics, in the law of motion, of sound, of light, the kinds and strength of material, of friction, inertia, of electricity, steam, chemistry, with just enough of the manual training to demonstrate the principles. Such a mechanic with this knowledge can step into a shop and in a short time distance the man who has no schooling in these principles; he can sooner acquire the skill in his profession, and it will be of more service in that his intelligence goes with it hand in hand.

The Skill Comes from the Shop.

The State may give him the principle, but the skill must come mainly from the shop. The State cannot assume to teach all the practical arts any more than it is its province to manage all the farms or operate all the railroads, or run all the machine shops. It can give general or special instructions in the principles upon which the arts are founded, so that personal aptitude and private enterprise shall have a wider scope, and be of a more general benefit, and there in my judgment it should stop.

The direction the present schools in technology has taken is largely the outgrowth of the condition of affairs in the industrial world. It is almost wholly in the line of the mechanic arts. Mechanical science has now reached such a stage of development that the mere artisan, that is the man who devotes his

whole time and energies to the manual labor of his employment, will rarely have a comprehensive knowledge of the industry he seeks to promote. Then again, the division of labor is so great that a majority of the laborers know only one thing or perform only one operation in the many that go to make up the product, and know nothing of the general principles. The laborer becomes a machine if confined to the machine, and while the industry gains in the one direction by the skill of the human machine, it loses in the other the intelligent inventive genius of the man of observation, thought, and experience. Further, the day of the old-fashioned apprenticeship is ended, or practically so, when the young man from 14 to 21 was bound to serve and the master to teach all the principles and the arts of the industry, so that with the experience for seven or more years, the general knowledge picked up here and there, he became a mechanic well versed in all the principles and details of his profession.

A Demand for the School.

The result is that there is a demand for a school where these principles may be taught, and through which the brightest intellects may be brought into sympathy with the mechanical arts. Experience has demonstrated the wisdom of complying with this demand. The march of improvement in the industries is almost measured by the intelligent application of science promoted by institutions directly or indirectly devoted to their interests. I say directly or indirectly, for all sciences illustrate each other and are cognate in some of their points, so that there is hardly a science which does not in some degree promote an art the outgrowth of a kindred science.

The importance of these schools has been so clearly set forth in the recent report of the royal (English) commissioners on technical instruction, that I cannot refrain from referring to it. It will be remembered that at the close of the Napoleonic wars all the industries of continental Europe were prostrate, while those of England were in the most prosperous condition. England was not only mistress of the seas, but of the world's industries. "Before factories founded on the inventions of Watt, of Arkwright and Crompton had time to take root abroad, and while England's commerce and manufactures increased from year to year, the great wars of the early part of this century absorbed the energies and dissipated the capital of continental Europe."

"For many years after the peace England retained almost exclusive possession of improved machinery. It was made a penal offense to enlist English artisans for employment abroad, and for years the export of machinery abroad was prohibited. Thus when less than half a century ago continental countries began to construct railways and erect modern mills and mechanical work-shops they found themselves face to face with a full-grown industrial organization in England which was almost a sealed book to those who could not obtain access to her factories."

These were the facts half a century ago. But the whole phase of affairs has been changed. Continental Europe is now a sharp competitor of England in nearly all industries, and in many in advance. What has brought this change about, and why, relatively, has England fallen behind and continental Europe forged ahead? This was one of the problems submitted to the royal commission, and the following in part is the answer:

Technical Schools Abroad.

"To meet this state of things abroad, foreign countries established technical schools like the Ecole Centrale of Paris and the polytechnic schools of Germany and Switzerland, and sent engineers and men of science to England to prepare themselves for becoming teachers of technology in those schools. Technical high schools now exist in nearly every continental state, and are the recognized channels for the instruction of those who are intended to become the technical directors of industrial establishments. Many of the technical chemists have, however, been and are being trained in the German universities. Your commissioners believe the success which has attended the foundation of extensive manufacturing establishments, engineering shops, and other works on the continent, could not have been achieved in the face of many retarding influences had it not been for the system of high technical instruction in these schools, for the facilities for carrying on original scientific investigation, and for the general appreciation of the value of that instruction and of original research which is felt in those countries."

"With the exception of the Ecole Centrale of Paris, all these schools have been created and are maintained at the expense of the several states. The buildings are palatial, the laboratories and museums are costly and expensive. Your commissioners cannot repeat too often that they have been impressed with the general intelligence and technical knowledge of the masters and managers of industrial establishments on the continent. They have found that these persons as a rule possess a sound knowledge of the science upon which their industry depends. They are familiar with every new scientific discovery of importance, and appreciate its applicability to their special industry. They adopt not only the inventions and improvements made in their own country, but also of the world at large, thanks to their knowledge of foreign languages and the conditions of manufactures prevalent elsewhere."

A Strong Argument.

This report, coming as it does from such a source, would seem conclusive of the subject of which it treats, and their final opinion is of great weight. They say that no argument is needed at the present day to prove "That in order that England shall maintain the high position which she has attained in the industrial arts, it is incumbent upon her to take care her managers, her foremen, and her workmen should, in the degrees compatible with their circumstances, combine theoretical instruction with their acknowledged practical skill."

What is the lesson for us? The United States is to compete, to some extent is competing, with the full grown industrial organizations of England and continental Europe. Our industries are an important factor in our body politic; not the controlling one, but a tremendously powerful one, and our future is to be largely shaped by our ability to manufacture as well and as cheaply as any one else. To do this we must put intelligence into our shops and theoretical instruction into our schools. We must occupy this ground ourselves, with our own brains and muscle. Two-thirds of our foremen and master mechanics are foreigners, educated in the technical schools of Europe or instructed by an apprenticeship, which is not germane to our institutions. An apprenticeship is considered by our young men but a remove from serfdom, and the only chance we have for success is to import our skilled mechanics or educate them here.

Hence there is a place, and a large and well-defined one, for schools of

technology. It is in the line of the report referred to. Institutions where may be taught the sciences upon which our industries depend. The technical schools covered by these reports were for theoretical instruction with only application of the sciences sufficient to demonstrate the principle. The commission recommend no others. They say in effect that the attempt to do more has not been successful. A beginning has been made in Prussia towards establishing secondary technical schools, in which practical instruction is given in laboratories and workshops, but the ministerial report says "Its execution will be tedious and costly." Weaving schools for workmen at Crefeld are poorly attended and can have no sensible influence on the progress of textile manufactures. But there are in many places lectures on weaving and pattern designing largely attended by workmen. There are large weaving schools of the technical kind at Crefeld which are attended by those who propose to become merchants, manufacturers, managers and foremen, and which, without doubt, enable it to continue the most flourishing center of the general silk trade.

The Proposition Sustained.

All these circumstances sustain the proposition that there is neither profit nor success in the attempt to incorporate technical instruction of the practical kind in the lower schools, even in populous Europe. The conclusions I have arrived at on this subject are:

1. That it is desirable and the time is opportune to establish in the United States schools of technology for the higher instruction in industrial arts.
2. That neither here nor abroad is it practicable to make skilled artisans in the public schools; that the practical skill must be sought for in the shop.
3. That in a country like ours, where four-fifths of the population are in constant use of tools from early childhood up, it is labor lost and money wasted and time squandered to impose shop work as part of the regular duties of the public school.
4. That as our cities increase in size there is a class of children who can, perhaps, be reached in no other or better way than through the shop.
5. That shop work, with few exceptions, will be fascinating only so long as it is play; that it will lose its charm when it becomes a duty.
6. That a Jack-at-all-trades is generally good at none.

The danger is that in this era of applied science we go beyond what is practicable. The subject of education has its radical reformers, as well as politics and religion. In some things right and some wrong, it is for us who wish to know what is truth to exercise discrimination. The advocates of industrial education are likely to mistake, in the language of another, a child's wild enthusiasm over a new occupation for a newly discovered aptitude in human nature. The well known law of school life will find no exception in this case, and that is that children can be excited to a prodigious pitch of intensity in behalf of a novelty in the school-room, whereas the same exercise becomes only an additional daily grind when taken by a new set of students as a part of the regular course of study. It may do as an occasional exercise, and then its success will depend so much upon the fertility of the teacher, his own personality and systematic enthusiasm, that it would be unsafe and unprofitable to make it a feature for all schools, with teachers of all grades and qualities.

In Conclusion.

But a few words more on the general subject and I am done. Applied

science is not science itself. Let us not forget that. Among the thousand new and beautiful and valuable things this practical age is producing, let us remember that back of all was the quiet student, the diligent collator of facts, who has made all these things possible. He has been so quiet about it that we may not recognize our obligation to him. He is the greater in that his was the germ that gave vitality to all this growth. Let us, therefore, not neglect original work, research, investigation. It is in science that we have room for the fullest scope of the greatest minds.

Why is it that we have no master-pieces in this day? Why do we turn with such reverence to the literature and art of the past? If this age knows immeasurably so much more than former ones why is it not sufficient unto itself? Why is it that so much of the "New is not good and so much of the good is not new?"

A recent writer has said with reference to art: "The great artist is the rich, ripe fruit of a whole people's art life; is the high crested wave that rises out of a whole sea of similar tendencies and endowments." Where is the crested wave on our sea? There is activity enough. In educational matters there is money spent beyond precedent, and appliances and labor-saving machinery and easy books by the cord, and diplomas in the open market, and a world full of literature, art, and science; but in all this sea there is no crested wave!

We ought perhaps to except science. In that there is added power, advance in absolute knowledge. All along the line there are discoveries of something new. But they are discoveries in the outer world, the finding out nature and nature's powers and laws.

Columbus discovered a new world, he did not create it; it lay in beauty under the smiling sun and beneath the shining stars ages before he started his prow for the Indies. He was not seeking a new world, he desired a straighter course for the old and he stumbled upon this, which God and nature had placed in his pathway. You say this was an accident; I answer yes and no. Yes, because he was not looking for it as the astronomer looks for the planet he knows must exist, because he has first found it in his study. I say no, it was not an accident, because he was not accidentally on the high seas that misty morning when land ho! was hailed from the masthead. For days and days there had been drift and sea-weed and land birds that could come only from the continent just beyond the horizon. Columbus saw beyond the horizon, he had seen beyond it before he left the shores of Spain. That was no accident. The years of study had placed him in line of the new fact, just beyond the horizon. And after all, shall we say that this has not been true every step in human progress?

We say men have discovered something new either in law, human and divine, in logic or in fact. What does it mean? Only that they saw beyond the horizon; there all the time lay the truth, the land, the continent. Euclid cried, "Eureka! eureka!" as he went in bounding joy from the sandy beach upon whose tablet he had demonstrated the problem he had for years sought to solve. But the law he demonstrated was as old as the fiat of the Almighty. He had only found it; he had placed himself on the high seas as Columbus had. Phidias saw beyond the horizon, so did Aristotle, and Socrates, and Bacon, and Newton, and Shakespeare, and Moses, and Peter, and Paul. Christ himself brought life and immortality to light, but they existed before he lifted them above the horizon. Revelation is not creation. The truth, the law, and the fact are eternal. Men discover them, men reveal them; God occasionally shows beyond the watery waste the outlines of the unknown, but

beneath are the everlasting hills, unknown, but not unknowable; but from Eden's morn to this day of grace no man has found anything, or revealed anything except when on the high seas seeking it, except when in line with God's thought.

So I am not discouraged over the present tendency towards materialism, over this voracious appetite for facts. We are after truths just beyond the horizon; they are a part of the great universe and will in due season adjust themselves in harmony with divine law. They are but waves seemingly resisting the tide, but all the time carried by its mighty swell. All this vital energy will in the end work out wholesome results. But do not let us waste our energies by violating the wholesome law of mind, or sacrifice our children beneath the wheels of Juggernaut. There may be a better way for them and for us. Let us put ourselves in line with the best, for if we go on cramming and hurrying and constructing royal highways to learning, the first we know we will come to a stop against something hard not of our own choosing. Nations do so frequently. This one struck something hard in 1861, and when we found ourselves unexpectedly face to face with it we wrestled with it and mastered it and came out the better for it, not the better because we had been in the wrong way, but because we had the courage and will and power to blast a road through the rocks. So will it be with tendencies. This tendency towards material facts, ignoring too frequently the good, the true, and the beautiful, will go along swimmingly till one of these days it will strike something that will stop it and dam it up, and then there will be a sea, and high over the billows will be a crested wave around whose summit will bathe the sunlight.

DISCUSSION OF THE PRECEDING PAPER.

W. J. BAXTER, of Jonesville, said:

It is a serious question how far industrial education may be introduced into our common schools. There is a complaint that our schools are not doing what they ought. The active duties of life demand more. In large cities manual training can be made a special feature. So far it has been very costly. It is carried out successfully in St. Louis; pupils manufacture furniture and work in iron. I agree, however, with the views expressed in the papers of Dr. Thompson and President Willits that industrial education cannot be added to the common schools. The principles of mechanics can be, and ought to be, taught in our graded schools. A certain knowledge of fundamental principles must be obtained in order to become skilled artisans. These can be even taught in the common schools. I regret to see so many teachers present hesitate to tackle this live question. My opinion would be to give instruction in principles in common schools and leave manual labor training for the higher schools.

C. F. R. BELLOWS, of Ypsilanti, said:

It occurs to me that we are apt to limit our attention to the trades when our thoughts are turned towards industrial education and manual training. The principle has a more elementary aspect. I have found a difference between the theoretical triangle and the practical triangle, and the students in my geometry classes find a vast difference when they come to measure surfaces and measure volumes of solids. The defect in the system of instruction is the omission of a certain co-ordination that exists between mental and manual efforts. Let the

pupil handle the rule! Let the hand work conjointly with the mind! It is so with the microscope; it is so with the telescope. Fifteen or twenty years ago we read about things that pupils find out now by actual test. Let us look into elementary fields for the principles of industrial education. We are not to think of hammers and saws when we think of industrial education.

W. H. BUTTS, of Orchard Lake, said:

In the school with which I am connected we allow manual labor as a substitute for some military drill. Manual labor deserves a place in some of our schools for two reasons: First, as a substitute for gymnastic training so much neglected in schools. Manual training is useful as a means of illustrating mathematics and physical sciences. The teachers of these departments can direct with profit their own students in the manufacture of apparatus. We need one or two institutes of technology in this State. The University, Agricultural College, or special academy, should undertake this work and make it practical.

E. G. ZIEGLER, of Rochester, said:

That our schools fail in so many instances to fit pupils for actual life, is to be attributed to the fact that many teachers are not qualified to teach except by mere routine, permitting pupils to depend on text-books, borrowing and cheating. We need to study natural methods to engender habits of industry, honesty, and responsibility, then put these methods into practice.

J. L. LUCAS, of Niles, said:

The call for industrial training in the common schools is but one of the many tendencies on the part of the parent to shift a responsibility in regard to the child from himself to the school. The child is left by the parent entirely to the school for intellectual training, to the church and Sunday school for moral and religious training, and now that they find a lack on the part of the pupil for the practical duties of life, the parent overlooks the opportunity, or at least duty, of finding such training and clamors for a provision for it in the schools. The expense and impracticability of such an annex to our schools does not secure the attention of the parent. He does not stop to think that the boy is in school but five or six hours a day. Why should not the parent lay down a systematic line of duty for the boy to occupy part of the five or six hours a day worse than wasted in the streets? Should not the parent be called upon to discharge his duty more fully to the child before calling upon the school to bear a heaver burden?

AUSTIN GEORGE said:

It is true that there is some dissatisfaction with the public schools. The public demand some different work in the schools than is done at present. Now I do not know as this demand will ever be met; do not know as it can be met, inasmuch as the demand is a changeable one, and if met to day, the schools must face a new demand to-morrow. Whenever the community is dissatisfied, some always lay the cause to the door of the schools. This is essentially unjust. The present unrest on the subject of industrial training comes from the change that has gradually come in our social and industrial condition. This, as was stated in the paper last evening, is the era of machines and not of mechanics. A man goes into a shop and may learn to make a bolt, or even a bolt-head, and becomes a skilled laborer only in that particular, and not the full-rounded mechanic of the olden time, and so the apprentice system no longer exists. Then in the rural times (no longer ago than our own boyhood) the men were, as a rule, engaged in occupations and according to methods

which the boy could appreciate and engage in; the same was true of the girls of the family. Now all this is changed; in the towns certainly, and in the country to a very large extent. The men are largely getting their living by their brains, and this requires a trained judgment which the boy does not possess. And so the boy cannot work with his father, and his time, outside of school-house, is spent in play and loafing. Now the remedy, in my judgment, is not to turn the schools into workshops; the same outside time would still remain on the child's hands. The children need, more than ever, brain culture; but brain culture can best be carried on by training the mind and the senses at the same time. Objective teaching is the only way in which the observing powers can be trained and accurate conceptions lodged in the mind. Methods based on this idea can be introduced into the very lowest grades of the schools, indeed they belong there. Drawing should be taught, the eye and hand are trained to accuracy by this branch. In arithmetic, objective teaching is of the utmost importance. The tables of weights and measures should be taught by weights and measures; the children should take them in their hands, should build up the tables, and actually weigh and measure. I mean by objective teaching that which will cultivate the hand, the eye, and the brain, which is all any industrial training could do, and is, moreover, feasible in all primary schools.

A. E. HAYNES, of Hillsdale, said:

I have been much pleased with the good things said by the speakers who have preceded me. I know that the study of books to some is distasteful, while the study of things is a pleasure. There are, indeed, some boys and girls whom we might never be able to lead up to high scholarship, yet who might be interested and encouraged to become intelligent and useful men and women if taught some of the arts. There are, no doubt, some pupils to whom one kind of study is distasteful, who might be easily kept busy and interested, and thus less liable to meet temptation and less likely to be overcome by it. I believe, however, that the business of the teacher in the common school is to try to give every boy and girl before him not only the rudiments of an education (such as reading, writing, spelling, and arithmetic), but also to assist him or her to build up a noble character. Let the teacher study the intellectual and moral bent of the pupil, and then do his best to direct him properly. I do not believe that the common school should do much more than this.

I do not think it advisable to attach the teaching of technology, in its true sense, in any way to these schools. I have in mind an illustration of this "directing" the pupil. A year ago, in my class in physics, a young man became interested in the electric machine used before him in the class room; he began to inquire how to make such a machine. I advised and encouraged him, and ere long he had made a complete, though somewhat clumsy, piece of apparatus. But he made a success of it, as was proven beyond a doubt to many of his classmates as they felt the shock of its charges. In my opinion, schools of technology bear a relation to the common schools similar to that of the University to the common schools. It seems to me, as I said before, that the work of the common schools should arm the pupil with the elements of education and worthy purposes. With these and persistence he will make a success when he takes his more practical course in the great university of the world's work. Give him these; point out to him the noble examples of those who have won success from the world by their own efforts and then let him work out his own salvation.

IRA MAYHEW, of Detroit, said:

It has been remarked that the *people* clamor for technical education, and demand instruction in industrial employments in our colleges and high schools. Whether this be so or not, certain it is that the *children* attending our common schools need consideration, and that their right education requires the introduction of manual appliances to aid them in the proper understanding of their studies. If there is need of technical education in the colleges and high schools of the State, certain it is there is greater necessity for illustration in the common schools of our smaller villages, and of the country districts everywhere. This does not require expensive apparatus, but appliances which can be provided by teachers, by interested parents, or even by the larger boys, in workshops furnished with saws, and planes, and gimlets; and apparatus thus provided often serves a better purpose than that which is more costly, because it imparts to children a peculiar zest, being made by persons who thus show special interest in aiding them to comprehend what is difficult for them to understand without such helps.

In hundreds of cases throughout the State, children study and recite the tables of weights and measures without understanding them. They learn and say, "four gills make one pint; two pints one quart; four quarts one gallon, etc.," without knowing the size of a gill, pint, quart, or gallon, or which of these is the greatest, and the same is true of other tables. We cannot begin too early to have children understand the terms they use. In this case introduce a set of measures into the school. Show a class of learners a gill cup. Fill it four times and empty it into a pint cup. Then fill this twice and empty it into a quart measure. This done, fill the quart cup four times and turn its contents into the gallon measure. Let the children *see* this done. With such tuition and illustration as this, children become interested in their studies and readily understand them. They will not continue to study tables many times over and know little or nothing of them. By studying them a few times over, in the manner here suggested, they thoroughly understand and remember them.

In like manner, even the younger classes of our schools may learn with interest and profit, the table of long measure, as was done by the primary department of a school conducted by myself forty-five years ago, an account of which was published in the school journals of that time, and soon after in a work on education. We constructed a set of rules for linear measurement, of uniform breadth and thickness, each being an inch wide and half an inch thick. We had nine rules. Four were each one foot long; one, one foot and a half long; two, two feet; one, two and a half feet; and one three feet. The children were led to observe carefully the length of these several rules, until they could state at sight the length of each. At first some of them would misjudge. They would call a two-foot rule one and a half, or two and a half feet long. In such cases their judgments were at once corrected by the application of two one-foot rules, and in other cases similarly. They were then led to observe with care, tables, desks, etc., and to estimate their length, and were afterward permitted to measure them and test the accuracy of their opinions. So far as practicable, all misjudgments were corrected by actual measurement, either by the children or in their presence. In this way their judgments soon became more reliable in these matters than the average opinions of adults. An important point gained by such experiments is this: Children form *the habit* of understanding what they read, and say, and do, which

habit increases their interest in study, and enables them better to comprehend all succeeding branches they take up.

With holes in the ends of the rules I have described, and with a few pins for uniting the ends of two or more of them, angles of various sizes, and triangles of different kinds, and many geometrical figures, may be shown. And then, again, the various kinds of levers may be illustrated, and the power of the compound lever shown.

With an earnest purpose to make one's school interesting and really instructive, there is hardly a neighborhood in the State where apparatus may not be constructed that shall develop manual dexterity in children, and what is better, quicken their thought and aid in their understanding of the various branches of study they pursue.

In the school already referred to there was a class in natural philosophy. Simple and compound levers had been explained and illustrated, and the pulley was under consideration. In the class was a bright youth, just entering upon his teens, and a large, clumsy young man, slow in bodily movement and slower in thought. The question arose, What weight will a power of fifty pounds raise in the use of a movable pulley with two wheels, used in connection with a fixed block of two wheels. The answer given was two hundred pounds. This teaching of science the bright youth understood, but the lubber would not accept it. It therefore became necessary to arrange a demonstration adapted to his comprehension. As was our custom in such cases, we constructed and put up in the lecture room the necessary apparatus for this purpose with the fixed pulley overhead.

The lubber held the movable pulley at one side of the room while the youth held the single line at the other side. In the presence of observant and interested spectators the demonstration proceeded. Each contestant was confident of success. Presently the youth succeeded in drawing in line, hand over hand, and the lubber was forced to yield his position, slowly, but surely. Soon he was under the block, then on tiptoe, and finally dangling in the air. When thus compelled to yield his position he reluctantly accepted this teaching of science. The demonstration was convincing.

I might refer to the threshing machine, then coming into use, and call attention to the interest taken by the class in examining its parts in order to determine the number of revolutions made by the threshing cylinder, while the horses, constituting the motive power, complete one circuit in their work. I might also refer to the old spinning wheel which some of your mothers or grandmothers were familiar, and bring to mind the interest with which young men and maidens engaged in the solution of problems requiring the number of revolutions made by the spindle in the wheelhead, while by the use of the wheelboy, the large wheel, constituting the motive power, made a single revolution, its diameter and the diameter of the several wheels in the head being given. But the illustrations already given are sufficient for my purpose. The principles referred to, and the methods employed, are not limited to the subjects named, but are applicable alike to natural and experimental sciences generally, in which, by doing, students best learn both how to do, and how to understand, and thus form habits of both doing and understanding, which will serve them a good purpose all through life.

REPORT OF THE COMMITTEE ON SCHOOL LEGISLATION.

MR. PRESIDENT—Your committee, appointed to consider the subject of needed school legislation, have had the same under consideration and would respectfully submit the following report:

The present school law of Michigan is a growth rather than an inspiration. Many times has the original stock been grafted, and the growth and fruit of some of the scions have proved the wisdom of their setting. The present law, however, as an exponent of an ideal educational system is far from perfect. Your committee have had no trouble in determining what, in their judgment, would be desirable changes, but they have found it no easy task to decide just what to recommend as most likely to meet the approval of this association and to gain the favor of the Legislature.

If it were the object of this association to recommend a code of laws which would make the school system of Michigan one harmonious whole, both the constitution and statutory enactments would have to be revised. And, it is not saying too much to assert, that with the tried legislation of the various states as a guide, it would not be a difficult task to formulate a code of laws which would accomplish this result. This, however, is seemingly impracticable, and your committee, after much consultation with those familiar with the operation of the present law, have decided to report but two recommendations, both of which, in the judgment of the committee, are imperatively demanded, and should they be enacted would be far-reaching in their effects on the schools of the State.

The report issued from the office of public instruction for 1883 discusses in an able manner several suggestions for school legislation, and your attention is called to the summary of such suggestions as found on page 79 of that report.

The first suggestion there mentioned is that the township should be made the district unit for the management of local school affairs.

This recommendation your committee would most heartily support. It is not a new proposition. In several states the township is now the unit. The plan has been carefully examined by many prominent school officers of this State with much satisfaction. Among the many benefits likely to accrue from such an enactment may be mentioned the following:

1. The number of school district officers would be reduced by about 15,000. The machinery of the law would be much simplified, and the observance of the laws concerning the official duties of officers more easily secured.
2. Township uniformity of text-books would result.
3. Uniformity of time of beginning and duration of school terms would prevail.
4. The tenure of office of teachers would be more settled.
5. With the additional aid of intelligent supervision and a system of free text-books the important problem of grading would find an easy solution, and the operation of a compulsory law much facilitated.

The difficulties lying in the way of such an enactment are many, but are by no means insuperable. One of the most serious is the adjustment of property rights in transferring present district property to the control of the township.

An examination of the present law discovers the fact that upward of forty sections would need modifying in changing from the present district to the township as the unit. Yet this may safely be left to careful legislation and judicious administration without fear as to the result.

Your committee would also recommend a change in the *method of school supervision.* The present law enumerates the more important duties of the supervisors of schools, and affixes penalties for the non-discharge of such duties; but instead of providing intelligent supervision, which the schools so much need, the law, seemingly, could not have secured the prohibition of competent school supervision more effectually than now prevails.

Statistics gathered by the superintendent of public instruction show that during the year ending Sept. 3, 1883, 27,000 official visits should have been made by properly qualified officers to the ungraded schools alone; while, in fact, but 4,555 such visits were recorded. Examination of the reports from the office of public instruction, covering the period of township superintendency, leads to the conclusion that the ungraded schools were better served under that regime than at the present time.

As to the qualifications of the supervising officers, the last report from that office has the following:

"Failure to secure the amount of inspection required is not the only fault noticed in this connection. It is just to presume that persons well qualified for the position of inspector are more prompt and faithful in the discharge of their duties. It is also safe to conclude that a goodly portion of the visits reported were made by persons possessing little knowledge of school affairs. If the supervision of schools is to have any value or significance in it, it must be done by men having a liberal culture and a practical knowledge of the work. It is an injustice to the teacher and no benefit to the schools to be examined and criticised by inspectors who do not understand even the rudiments of teaching.

"Yet these officers are required by law to counsel with the teachers and district boards as to the discipline and instruction in the schools, and to improve by such means as they may devise, the character and qualifications of the teachers and district officers. This may be considered an extreme view of the case, but the reports in this office show that only about one-fourth of the township inspectors have paid any attention to the visitation of schools. I am ready to admit that there are exceptions to the above statements, and that some of the superintendents are doing good service; but, from all the information I gather upon this subject, I am convinced that nearly all of those who failed to inspect the schools, and fully one-half of those who reported visitations were incompetent to perform the work of supervision."

The above is a deduction from the most reliable evidence to be obtained upon this subject, and needs no argument in addition to establish the necessity of a change.

As to the manner of supervision, your committee would suggest that the county be made the unit, and that the entire supervision of the schools of such a district be placed under the immediate control of the Secretary of the County Board of Examiners; that the Secretary have the authority, in the more thickly settled counties, to call to his aid the other County Examiners; that he be appointed rather than elected; that residence not control his selection; and that his fitness to discharge the duties of his office be determined by examination by the State Board of Education.

In the judgment of your committee, the enactment as a law of the recommendations herewith submitted, would secure a unity and efficiency in the common school law hitherto unattained. As to the wisdom of the changes recommended, your committee need not argue. The history of this association

shows many of its most honored members to have been earnestly in favor of these or similar provisions of law.

The following additional suggestions are brought to your attention for such action as this association may deem wise. They are not offered as recommendations, the committee fearing that an effort to secure so many changes might endanger the success of any attempted legislation:

1. The law requiring instruction to be given in all schools concerning the effects of the use of alcohol and narcotics on the human system should be strengthened by adding a penalty for non-compliance with its provisions.

2. A semi-annual disbursement of the primary school fund instead of an annual disbursement as now, would relieve many districts of temporary financial embarrassment.

3. The conditions of the compulsory school law should be extended to districts of less than 5,000 population.

4. The State should provide for the expenses of visitors appointed to visit and examine the educational institutions of the State.

5. The establishment of manual training schools in connection with the State Normal School and the Agricultural College.

6. The distribution of the primary school interest fund on the basis of attendance at school rather than the basis of school population.

All of which is respectfully submitted.

D. HOWELL.
P. A. LATTA.
O. D. THOMPSON.
Committee.

DISCUSSION OF REPORT OF COMMITTEE ON SCHOOL LEGISLATION.

DISCUSSION OF THE PRECEDING REPORT.

W. J. BAXTER, said:

I am sorry to see so few teachers from our common schools here to-day. We see here representatives from our high schools and colleges, but teachers from our district schools are rarely present at these associations. I wish they were here to take part in these discussions. Legislation in regard to schools is called for at every session of the Legislature. The defects in our present law are many, but it is dangerous to ask too much at a time.

Teachers too often ask for new laws to fit mere theories which they have conjured up. A poor law well understood and enforced is better than a good law not understood. If I could have my way in regard to the courses of study I would require *reading, writing, spelling,* and the *principles of arithmetic in every grade of all* our schools. We had a good law in regard to supervision of schools, and it was thrust aside before it had time to develop itself. It was put aside on the ground of expense, but it is not so expensive as the township system. I agree emphatically with the recommendations made by the committee. The smaller the district for supervision the smaller the man to supervise it. This plan, if adopted, will tend to secure uniformity of text books, more equitable distribution of public money, uniformity of qualifications required of teachers, less favoritism, and in the end give to every township one graded school.

MR. T. S. CLARK, Davisburg, said:

No question will come before us for discussion of more vital importance than the one contained in this report.

My reasons for this assertion are these. The University, the Normal School, the Agricultural College, the various denominational colleges, and the graded schools are the outgrowth of a well defined plan working from a beginning toward a determined end. To say that any of these has achieved its best results would be unreasonably to exalt their promoters, but none the less is their present condition the result of a systematic growth, carefully fostered until they are now able to protect themselves from any ill-natured neglect or malicious meddling.

The ungraded or district schools show no such well-developed plan in their history. Beginning with the organization of the State, Father Pierce, of blessed memory, inaugurated a system of township licensure and supervision, consisting of a board of three school inspectors.

It was doubtless the best system practicable at that time, but from the beginning was only a *scaffolding*, not the *foundation* of a *permanent structure*.

The demand for the removal of this scaffolding and the substitution of something more permanent and effective grew loud by the end of the second decade in the life of the State, but the events of 1860 diverted the public mind from the consideration of all ordinary topics. With the return of peace the agitation revived and in 1866 the old system gave way to that of the county superintendency. Eight years' experience turned the tide of public opinion, and the people demanded its removal. A slightly modified phase of the original system—the township superintendency, followed for six years, when it in like manner gave way to the present one, and now, after only four years' trial, we are asked to unite in memorializing the Legislature to change back again to the county superintendency system.

Pardon the assertion. The report does not mention a county superintendent, but a secretary having full power of supervision, ability to grant special certificates at will, and in all cases to act as executive officer of the examining board would be so nearly identical with that officer, that ordinary minds would fail to see the difference.

These frequent changes demonstrate my proposition, that no systematic, well defined plan has been followed in the treatment of this class of schools, and may well cause us to hesitate before attempting another.

The Association will indulge me in some reference to one of these changes, the inauguration of the county superintendency. Mr. Baxter has expressed a common opinion when he says that that system became unpopular because it raised the price of teachers' wages by demanding advanced qualifications, thus diminishing the supply. When so careful an observer as Mr. Baxter makes such a statement, and when so many able men agree with him, it is with profound humility that I presume to differ.

Gentlemen, the county system did not become unpopular *solely* because it raised the price of teachers' wages, but because it failed to redeem the promises its friends had made in its behalf.

The people had been led to believe that the new system would work a complete revolution; that teachers would receive a new baptism; that the visits of the competent, scholarly man, who was first to license only those well qualified, and afterwards to follow them with his watchful care, would completely banish inefficiency, incompetency, and disorder, and bring in the reign of the ideal school.

I am not talking at random. Although my head lacks the crown of glory which rests so honorably upon Mr. Baxter's brow, yet my experience as a

teacher goes back nearly as far as his, and I know that during the years between 1855 and 1860 we young men were shouting ourselves hoarse in demanding the change, fully believing that a condition of things at least approximating to the one I have described would follow. And I know that these views were largely shared by the community. It does not matter to say that we had no right to expect so much, that we were unreasonable and all that. I grant that freely; but none the less did the awakening come, and with it the reaction.

The new system started under most favorable circumstances. Both political parties put in nomination their ablest available men. Boards of Supervisors gave them a generous support when elected, and the State department was in perfect accord. Yet the result was as it must always be. The office soon came to be the goal of aspiring politicians. In many cases capable, honest men were thrust aside by those who knew better how to manipulate caucuses and manage primaries, and when once elected did not hesitate to grant certificates where they would most effectively aid in their re-election.

Respecting the workings of the township system, I have but this to say. When I sat in this hall four years ago and heard men say that the ungraded schools were absolutely valueless, that they were struck with dry rot, that they were worse than they were twenty-five years ago, etc., I was convinced that if the people had been unreasonable in demanding so much from the county system, the school men were quite as unreasoning in their assertions regarding the township system.

If all the previous educational work, supplemented by eight years of county superintendency, had not made these schools able to endure a system of supervision, no matter how defective, for six years without such a total collapse, we might well despair. Their error was in elevating supervision far above its merits. They apparently made success in the school-room more dependent upon the supervising officer than the qualifications of the teacher. Of course such a notion has no foundation. A live man in that office may galvanize dullness into the semblance of activity, infuse life into mere routine, give teacher and school glimpses of what they may do, but unless the teacher has high aspirations, executive ability, energetic character, and familiarity with the branches, the effect will be only temporary. In a day or two the school will be in the old rut. These qualifications cannot be gained in a day, nor imparted in an hour. If the teacher possess them, even though imperfectly developed, he will do continuously better work under defective supervision.

The best supervision cannot supply their lack. Much has been said of the inefficiency of the present system of supervision. I am perfectly aware of this. That the condition of the schools was any better during the last years of the county system cannot be proved. I am bold to assert that it was not, and can not be under any system that embraces so wide a territory in one district, without an expenditure fatal to its adoption and continuance. A very important reason for continuing the present system so far as licensing teachers is concerned, is this. It is practically out of politics, and will remain so, while the salary is merely fair pay for the work done, but not high enough to become an object worth struggling for. As at present arranged, the work can be done in connection with other avocations. Adopt this resolution, let the Legislature make it a law, attach to the office a salary that shall make it a pecuniary object, and immediately we shall have the old scenes re-enacted, party zeal and fidelity, not fitness for the office, winning the prize.

But I oppose this report for another reason. Mr. Baxter has shown you that the cost of the supervision, such as it is, is borne by those who receive the benefit, be those benefits less or more. Adopt the report and the cost of supervising the country schools will become a charge upon the property of the whole county. Will the Representatives of Detroit, Jackson, Grand Rapids and the other incorporated cities be willing to add this further burden to their constituents' taxation?

I have not the figures, but I suppose that I shall not be far out of the way in saying that the cities and towns whose schools are entirely under their own control, pay not far from one-third the taxes of the State. At present we ask them to aid the ungraded schools only by contributing their share of the expense of licensing teachers. If in addition we attempt to put upon them the burden of the supervision, it is morally certain that they will not only refuse to grant that, but will also insist that the whole expense be put upon the townships receiving the benefit, and so compel a return to the original township system of inspection. The adoption of this plan, in my judgment, puts this class of schools at the imminent risk of losing an acknowledged good for the sake of gaining something else which is at best of doubtful benefit.

In all departments of our statutes the evils of persistent tinkering are manifest, but nowhere so painfully prominent as in those parts relating to the interests of the common or ungraded schools.

S. D. BARR, of Albion, said:

We should go carefully. Next to teaching is intelligent supervision. The power to do and how to do it is an essential factor in school life. The teacher is very anxious about this question. I say let the Supervisor enter the school-room, not with military air, but kindly, lovingly. Let him make his criticisms after school is dismissed, and make them kindly, suggesting a remedy that he knows has been successful. The Superintendent should have power to do something. We never will accomplish good work until the right man is in the right place.

W. C. CALLAND, of St. Louis said:

Inasmuch as this body fully agree that the present system of visitation of schools is defective, and inasmuch as we may disagree as to minutiæ of the changes which will best secure relief, I therefore move as the sense of this body that a special committee, of which the State Superintendent shall be chairman, shall be appointed to devise such measures for relief as may seem to be practical and which will meet the emergency of the case, and urge the same upon the Legislature.

SOME LESSONS FROM THE HISTORY OF EDUCATION.

BY PROF. W. H. PAYNE,

In tracing the history of Normal schools in this country, I have been struck with the importance which their founders attached to the study of the history of education as an essential factor in a teacher's preparation. These New England educators of a half century ago had a large conception of the qualifications of one whose vocation was to teach. In these proposed professional schools, the subject of education was to be comprehensively studied in its three

phases—as an art, as a philosophy, and as a history. This Catholic scheme of professional study was worthy the men who conceived it, and though their ideal has been only very imperfectly realized, it is still an ideal for us and our successors. It is to one element in this Catholic scheme of study that I would invite attention on this occasion.

The importance of the study of the history of education may be urged on several grounds. I will make brief mention of some of them:

1. If we define the purpose of historical study in general to be that of forming a vivid conception of the most notable things done by the human race, we make it a culture subject in the true sense of that term; for there is a vast aggregate to enlist the comprehensive powers of the mind, a complexity to tax the discriminating ability, and a vast human interest to call into exercise the emotional element in human nature. History, pursued in the light of this conception, permits the student to participate in the conscious life of the race. Any study that serves this purpose in a considerable degree is a culture subject; and any study that does not fulfill this purpose in some appreciable degree, has no culture value. Now what is true of history in general is true in some degree of special phases of history. It is the prerogative of educational history to exhibit the conscious efforts of the wisest and the best of the human race in behalf of their successes on the earth, the fate of the systems which they devised, and the principles which were involved in them. Here is a comprehensive aggregate, a complexity of structure, and an involution of human interests that mark this subject as having a culture value of high grade. Historical study in general is an element of general culture; the study of educational history is an element of professional culture. My observations of teachers and schools seem to have taught me that the thing needed above all others by the teaching class is that indefinable, impalpable, but very real thing which we call culture; and I feel sure that nothing will contribute more directly or more powerfully to this end than the historical study of educational systems, methods and doctrines.

2. What inheritance is comparable to that of an honored name derived from a long line of honorable and honored ancestry! *Noblesse oblige!* How is each generation thus constrained to preserve the family traditions and the family honor! Animated by this spirit, how easy it is to kindle a zeal that will lighten all life's burdens! Almost as potent is pride in professional ancestry. Yet how few teachers are able to avail themselves of this stimulus to noble effort! What profession can boast such a long line of illustrious ancestry? Mark a few names that occur almost at random: Moses, Ezra, Solomon, Christ, Paul, Socrates, Plato, Aristotle, Alcuin, Comenius, Pestalozzi, Arnold! Yet it is to be feared that to most teachers the most of these are unknown names. I venture to express the opinion that in the case of the teachers who have the best opportunities for a professional education, the substitution of educational history for the highest of the higher mathematics, or for entomology, or even for some of the practice work, would be a most profitable innovation.

3. While the practical value of a subject, *i. e.*, its value for guidance, is by no means its highest claim to consideration, it is one that should be taken into careful account. I am in doubt whether this subject *has* a practical value according to the current use of the term. We need not expect to learn from it how to stop whispering, or to prevent tardiness, or to teach subtraction, or any one of the thousand things that a teacher must know. This knowledge cannot be applied to such specific uses, but rather to uses which are general

and comprehensive, such as the trend of thought on educational questions through the centuries, judicial fairness in the discussion of complex problems, wisdom in dealing with systems and methods that have once been put on trial, etc. These uses are so general that even from this third point of view, the subject seems to have a disciplinary or culture value rather than a practical value. Still, out of deference to usage, let us call these high uses I have indicated, practical, and say that the study of educational history should be encouraged on the score of its value for guidance. The most specific advantage to be derived from this study is the saving of time, effort and money in the repetition of experiments that experience has once condemned. By the light of this knowledge we are able, as Mr. Spencer says, "to take stock of our progress," and to start on our own forward journey with the net results of all past educational effort, an advantage whose importance it is not possible to estimate.

In normal schools the history of education has never occupied the important place that their projectors desired and anticipated, and we have not to go far to find the reasons for this failure. In some cases the scheme of professional instruction has been so "practical" that this unpractical subject has been eliminated from the curriculum. As I was once told by a very prominent normal school principal, "We aim at purely practical results; a man can teach a good school without knowing anything of the history of education."

But the principal reason has doubtless been the lack of suitable text-books. Up to this time, according to the best of my knowledge, only three books have been published in the English language on the history of education. These are as follows:

1. History of Education, Ancient and Modern. By H. I. Schmidt, A. M., N. Y., 1876; 16 mo., pp. 340.

2. History and Progress of Education, from the Earliest Times to the Present. By Philobiblius (Dr. L. P. Brockett), N. Y.; 12 mo., pp. 310.

3. An Introduction to the History of Educational Theories. By Oscar Browning, M. A., N. Y., 1882; 16 mo., pp. 199.

The extent to which the historical phase of education has been studied in English speaking countries, is quite fairly indicated by the fact just stated, that we have only these three little books on this vast subject—at the very best only meager epitomes, lifeless and juiceless, dreary, and, in the main, profitless. If any exception is to be made, it is in the case of Mr. Browning's little volume, which is merely a slight enlargement of his article "Education" in the ninth edition of Encyclopedia Britannica. In point of style and in interest, it is a clear gain on the other two books; and if it is accepted and studied for what it pretends to be and really is, a mere outline which is to be expanded into a more elaborate study of the subject, it deserves generous commendation. Such epitomes, unless they provoke more extensive reading and research, are the most profitless of books. Their very comprehensiveness is a snare. They seem to teach much in a little space, and at the expense of but a little time; but the knowledge they communicate is too vague to be of any certain value either for culture or for guidance. The books just named will serve a good purpose if they lead to the reading of the more elaborate works which are mentioned below, or to the study of the original authors, such as Xenophon, Plato, Aristole, Plutarch, Quintilian, among the ancients, and Comenius, Pestalozzi, Jacotot, Rousseau, Locke, Milton, Ascham and Spencer, among the moderns. A critical study of the *Republic*, or of Quintilian's first and second books, would be far more fruitful than a dry *résumé* of the entire ancient

period. And it should be added with all becoming emphasis that no reading of educational history can be even tolorably profitable, unless it be done critically. A necessary preparation for this study is some definite knowledge of educational doctrines. It is only by this means that the lessons of history can be profitably interpreted.

It is to Germany, "The native land of Pedagogy," that we must turn for elaborate works on the history of education. The chief of these are the following:

1. Geschichte der Pädagogik. K. Schmidt. Köthen, 1876, 4 vol., 8 vo.
2. Geschichte der Pädagogik. K. V. Raumer. Gütersloh, 1879, 4 vol., 8 vo.
3. Geschichte der Erziehung. K. A. Schmid. Stuttgart, 1884. (Erster Band.)

These are indeed monumental works; they make a complete survey of education in its historical progress and development, and are the sources whence the lesser books on this subject have been compiled. Large translations from Raumer have been published in Barnard's American journal of Education. The history by K. A. Schmid is now in process of publication, and gives the promise of being even more complete and valuable than any of its predecessors. If no English author can be found to write a history of education from original sources, somewhat after the manner of the German authors just named, it is to be hoped that some one will translate the latest of these great histories. One or the other of these undertakings would not be long delayed if publishers could have a reasonable assurance that such books were in demand by the teaching profession.

In the French language we have two valuable works on the history of education:

1. Histoire Universelle de la Pédagogie. Per Jules Paroz. Paris, 1867. 12 mo. pp. 536.
2. Histoire de la Pédagogie. Per G. Compayré. Paris, 1884, 1 vol. 8 vo. pp. 484.

The theological bias of Paroz is sometimes offensive, as it creates a sense of narrowness in the general treatment of the subject; and there is lacking that wholesome critical insight which seems to me all essential in work of this description. The history of M. Compayré is a development and enlargement of two charming volumes published in 1879, his *Histoire Critique des doctrines de L'Education en France depuis le Seizième Siècle.* (Paris: 1879.) I think it impossible to speak in too high terms of M. Compayré's volumes. So far as clearness, elegance of style, and wise criticism are concerned nothing better could be desired. The main pre-occupation of the author is education in France, and so the general student will miss much that he wishes to know about education in other countries and in ancient times.

In justice to English authorship in the line of educational history, it should be added that we have some excellent biographical works, such as *Essays on Educational Reformers*, by Rev. R. H. Quick (Cincinnati: 1879); *Practical Educationists and their Systems of Teaching*, by James Leitch, Glasgow; *John Amos Comenius*, by S. S. Laurie (London: 1883); *An old Educational Reformer—Dr. Andrew Bell*, by J. M. D. Meiklejohn (London: 1801); *Reminiscences of Frederic Fræbel*, by Marenholz-Buelow; *Pestalozzi and his plan of Education.* By E. Biber, London. With this general introduction I proceed to my theme proper, which is a statement of some of the general lessons that are taught by the History of Education.

1. The history of education affords striking illustrations of what seems to

be a very general law of human opinion; that the recoil from an error is pretty sure to land us in an error of an opposite sort. That one extreme follows another is an observation almost as old as reflection itself. This law seems to be implicated in the famous doctrine of the mean, of which Aristole makes so much. According to this conception, truth in conduct or action is the harmony of two opposing or contrary movements; and such is the weakness or the infirmity of the human mind that it can seize and comprehend only one of these two phases of truth at one and the same time. For example, strict allegiance to truth requires the constant union of the formal and the real, or of the sign and the thing signified; but there is always a tendency for the mind to be occupied with the easier of these two elements, to the neglect of the one more difficult of comprehension. Thus, in religion, there is always a tendency to formalism, that is, to set up the symbol as an object of reverence, and so to leave out of account the verities of religion. In process of time this movement goes to such an extreme that it excites remonstrance, and then there sets in a movement back towards the simple and the real. In the sixteenth century the movement towards religious formalism reached its culmination, and then the recoil came in the name of Protestantism, and then in the name of Puritanism, of Quakerism, of Methodism, etc. The diverse of form from content, the gradual culmination of the formal, and then a recoil towards the real is just as observable in the history of science. Just prior to the period of Socrates, for example, the current knowledge of the time had been formulated, and the vocation of the scholar was to gain possession of these specious formulas, often empty, always hollow and deceptive. This movement had gone so far that to be counted wise, a man had need only to collect a library. This was the case of Euthydemus, a young Athenian of political aspirations, who early fell a victim to the merciless dialectics of the "cross-questioning god." Under this artificial state of things, the Socratic movement began, which, in one of its main characteristics, consisted in exposing the emptiness of what passed for knowledge. Xenophon gives a very entertaining account of the humilation of Euthydemus, who based his claims for political preferment on the fact that he owned a collection of books. When Socrates had done with him, this conceit had wholly disappeared, and he was brought to confess, "I seem to know absolutely nothing." In other words, certain forms had been examined, and it was discovered that they contained nothing. The instrument by which this exposure was made was the Socratic dialogue; and from this employment of it, it has been assumed that its purpose is always negative.

Acting on the assumption that "science can not be taught, but only drawn out," Socrates often employed the dialogue for positive ends, to lead his pupil to construct a body of knowledge out of his own internal resources. During the centuries that have followed the era of Socrates, this oscillation from form to content, and then from content back to form has been a recurring phenomenon. Truth, discovered, realized, and formulated in one age, becomes the cant of the next; and then a reform movement sets in, the purpose of which is to restore to forms their historic and proper content. In illustrating this general law of the oscillation of opinion from one extreme to another, I have incidentally stated one important instance of this movement, that from form to content, from sign to thing, and then the reverse movement from the real to the formal. An analogous case is next to be mentioned.

It appears to me that the truest statement yet made of the purpose of education is the following by Mr. Matthew Arnold: "The ideal of a general,

liberal training is to carry us to a knowledge of ourselves and the world." (Higher Schools and Universities in Germany, p. 191.) The two factors in this conception are the world without and the world within, the one discovered by observation, the other by reflection. The historical fact that I wish to call attention to, is that the current of opinion has flowed first towards one of these regions of knowledge, and then, by a recoil movement, towards the other. Physical or cosmical research had occupied the attention of the philosophers who preceded Socrates. Their purpose was to account for the physical universe, and to explain physical phenomena. Socrates, seeing the speciousness and inutility of these speculations, and convinced of their untruthfulness by noting the conflicting views held by these pretended wise men, directed his attention from the world without to the world within; for observation he substituted reflection; for physics, ethics. This recoil movement in human thought culminated in the age of Bacon; the period of oscillation was thus about twenty centuries. With Bacon there began a return movement towards realism, and now the pendulum of opinion has gone far back towards the pre-Socratic modes of thought. We who are here are either promoting this recoil towards realism or physical philosophy, or are borne along in the current in spite of our resistance. The indications of fact are not to be mistaken. Object teaching, sense training, the culture of the observing powers, manual training, are positive marks; while the warfare against the classics, the discredit thrown upon metaphysics, and a relaxing of faith in ideals and in whatever can not be weighed and measured, are negative indications of the same fact. A prevision that seems to be warranted by this historic movement is this: the mode of thought now in the ascendant exaggerates one of the elements of a liberal training, and by so much belittles the other; a return movement may be anticipated, and finally the oscillations will practically cease, and the training in the schools will harmonize the elements that are now in disaccord. An indication that we are even now approaching this ideal adjustment is the fact that in our Universities and in our secondary schools, the old is granting domicile to the new, and they bid fair not only to live together in harmony, but to be mutually helpful. It is an auspicious sign of the times that a student who is construing Homer this hour is to be found in the physical laboratory the next hour. This course of events will finally lead to the ideal curriculum, which will combine in harmonious measure the formal sciences, such as logic and mathematics, the real sciences, such as physics and chemistry, and the humane sciences, such as history and literature. The almost complete divorce of the old from the new, is seen in those distinct establishments known as the German Gymnasium and Real School. So far as this separation is maintained, it stands opposed to that ideal adjustment which is predicted by the historic movement of opinion. In the American high school of the first class, the classical course and the scientific course are impartially administered under one management, and often there is a third course, the Latin and scientific, which is a compromise of the old and the new, and in the end will perhaps serve as a basis of the final and ideal adjustment commended by Mr. Arnold. In this respect the American public school policy is more nearly in the line of historic development than the German. In the meantime, the man of one idea will continue to lift up his voice. On the one side there will be prescribed an exclusive intellectual diet of Greek and Latin and mathematical roots; and on the other, bugs, butterflies and botanical roots. But for ourselves and our children we will order a mixed diet. Our sons shall be able to read the Iliad and to analyze air, earth and water; and our daughters to read Dante and to

make bread and cook a beefsteak. Our educational creed shall embrace both the trained head and the trained hand, though we will train the head first as the best means of training the hand.

2. A survey of the whole historic course of human training shows that ancient education was dominated by the spirit of authority, and that in modern education the pupil has become, in theory at least, his own master. Anciently, the injunction was, "accept this as true because I assert that it is true;" now the theory is, "accept nothing as true unless you have verified it by your own personal experience." Here the recoil has been from tyranny to anarchy. As illustrations of these extremes, read the *Talmud* and the *Emile*. The actual Jewish child was originally kept within the narrow circle of authority; the imaginary, though impossible Emilius, is invested from very infancy with the liberty of the universe. If the self consciousness of Rousseau were fully awake while he was composing his educational romances, he must often have laughed in his sleeve when he thought of the readers who would accept on simple trust a theory which expressly repudiated all trust. But then it requires a dogmatist to condemn dogmatism.

Here again the truth lies at the mean. Authoritative teaching is right; so is free inquiry and personal examination. Man is at once dependent and independent, but the major factor in his constitution is dependence. So far as he is dependent he must rely for guidance on authority. The older conception, therefore, has the larger amount of truth in it.

The older practice, of the two, is the wiser and the safer; but the ideal practice, freedom duly guided and tempered by authority, is better than either. The great historic movements in opinion will attain this ideal as a resultant.

3. Ancient education was concerned almost exclusively with accumulated knowledge, that is, with knowledge which could be acquired through the interpretation of language. We may properly and conveniently call this second-hand knowledge. The extreme modern theory is that learning is a process of discovery or of re-discovery. To employ the conceit of Rousseau, the pupil shall not learn science but shall discover it. Throw aside books, take nothing for granted, assume that the world of knowledge is unexplored, and thus rise to the comprehension of the universe by repeating the experiences of the race! This, in brief, is the latest theory of learning and teaching. Locke was unconsciously the author of it; Rousseau gave it currency by putting a bit of sentiment behind it; Condillac actually attempted to put it in practice; and Spencer has attempted by specious sophistry to establish it on a basis of philosophy. Mr. Bain has happily and truthfully characterized this hypothesis as "a bold fiction." As to the disuse of books, let it be recollected that there is some knowledge, as of history, the reproduction of which without the aid of books is inconceivable. There is other knowledge, the reproduction of which without the aid of books, though conceivable, is practically impossible in the lifetime of any one individual. Natural science and geography are examples of this. The impossibility lies in the fact that much of the material to be studied is inaccessible to any one mind. There is a third class of subjects distinguished by the fact that all the material is in the personal possession of each mind. Such are logic, metaphysics, mathematics, and ethics. Science, as Socrates understood it, was ethics, and so he was right in his definition of the ideal teaching, that it consisted in leading a pupil to formulate his own knowledge, or in assisting him in the birth of ideas. A French writer, Renouvier, has described Socratic

teaching as "L'Accouchement d'une ame." If we will recollect that what is practicable in ethics is inconceivable in history, and barely possible in science, we need have no difficulty in determining the place of books in the work of instruction. I interpret the outcry against the use of books as a recoil from the old time misuse of books. The crusade will do good if it guards us against the old error, but is most likely to do great harm by leading us into a still more dangerous error. Some earnest men have been betrayed into a condemnation of books through a misconception of Socratic teaching. The true reformer will not stultify himself by preaching the abolition of the text-book, but will rather teach us the right use of books. The law of progress is inheritance supplemented by acquisition; and as the volume of capitalized knowledge swells in bulk from age to age, the importance of books will increase from age to age. The most of our knowledge we must receive at second-hand. The most of the science that we learn we must learn as literature and not experimentally; and I am persuaded that for the ends of culture, second-hand knowledge is better than first-hand knowledge. For practical or professional uses, physiology should no doubt be learned in the dissecting room and in the physiological laboratory; but for the purposes of general culture, it should be learned from books. Plato estimated the importance of studies chiefly on the basis of their disciplinary or culture value. His repugnance to practical studies, or rather to studies pursued for purely practical ends, may have been an instinct, but his preference was well founded. Any study consciously learned for practical ends has but slight culture value. This is one of the main reasons why a man should be liberally educated before he learns a profession, and also a reason why it is unwise to pursue a general and a technical course of training simultaneously.

4. If we give the term church its wider signification, the statement in the *Dictionnaire de Pédagogie* (*mot* Confessionnelles) is certainly true; "Historiquement l'école a été dans tous le pays la fille de l'Eglise." The first formal teaching was religious, and the first schools were connected with places of religious worship. The hieratic or priestly class was the first educated class, and the early schools were necessarily confessional. The historical union of church and school dates back from time immemorial, and the religious imprint left on education has been well-nigh ineffaceable. It is neither my duty nor my purpose at this time to discuss the effects, good and bad, of this domination of education by the church; but rather to point out certain historical facts and thus to discover the trend of human opinion. Human opinion in the aggregate is a resistless force. It is slow to start, its motion can be discerned only from the vantage ground of centuries; but it crushes the luckless system that presumes to arrest its progress. It is well said of some things that they come in the fulness of time. Their coming can not be perceptibly hastened by the set purposes of men; but when they do come, they have come to stay till their destined mission is fulfilled. And their exit is never sudden. Slow transition is the law of progress. "He must increase but I must decrease" is a typical description of all forms of progress. The final sentence may have been made up against the thing that *is*, but it will not vacate at once for the thing that *is to be*. The old life wanes in the same degree that the new life waxes. The ancient domination of the school by the church, and the modern domination of the school by the State, is a large illustration of the historic phenomena I have tried to point out. During the later Christian centuries church control of education has been gradually waning, and during the same

period State control of education has been as gradually waxing. The unmistakable progress of human opinion is irresistibly towards what French educators call Laicité, or the secularization of the school. In France, secularization is complete and actual; in England it is partial; in the United States it is established in theory, though the theory is not wholly supported by practice. The conception of State control of education is very old; it is only its domination that is new. The first appearance of this conception was in Persia, at least prior to the time of Cyrus; it was actually dominant in Sparta in the time of Lycurgus. During the middle ages the lesson seems to have been forgotten, but the thought reäppeared at the Renaissance, and to-day, throughout the whole world, save in the few countries where the State is dominated by the church, Laicité is fairly in the ascendant.

5. The historical union of church and school has led to some consequences that are deserving of note. As the primary concern of the church is conduct and character, so the matter of instruction in the church school was religious, ethical, or prudential. All the ancient systems of education agree in this respect. The Indian, the Persian, the Egyptian, the Jew, the Chinaman, were taught above all things their duties to their superiors, celestial and terrestial. The teaching of Socrates was purely ethical, and that of Plato and Aristotle mainly so. The preoccupation of all these eminent teachers was justice; the conduct of the young was to be brought into the most perfect conformity with the law of right. The kind of training next in importance was physical; the body must be brought and kept under a systematic regimen as the essential condition of mental soundness. The kind of instruction lowest in esteem was what we denominate practical. Plato would make the study of arithmetic compulsory, but almost solely on the ground of its disciplinary, or as we would say, its culture value. In modern education this sequence has been virtually reversed. The main preoccupation of the modern school is intellectual training and the getting of useful knowledge; next comes religious, ethical and prudential knowledge and training; and lastly, physical. The general causes that have operated to change the great aims of education may be noted in the sequel.

6. The general character of ancient education being religious or ethical, it is plain that all instruction was based on authority. The truth to be taught was embodied in revelations from Heaven, or in the precepts of men. In either case the knowledge was accessible only through the interpretation of language. We may express this general fact by saying that, as to its mode, ancient education was almost purely literary. The art of the scholar consisted in the interpretation of books. The degree to which the book has now lost its ancient ascendency need not be pointed out, though it is well to dwell for a moment on the general cause of this change. It lies in the fact that the reign of authority has been broken, and that learning is now conceived to be a process of discovery or of re-discovery. What need is there of books when it is assumed that each individual must be educated just as the race was educated historically?

As ancient education was mainly literary, instruction must have been based on memory. The truth was embodied in words, and it was very easy to form the conception that the readiest way to lodge the truth in the soul was to lodge the formal expression of it in the memory. In addition to this, in all religious institutions the form of the expression was almost as sacred as the truth expressed. Hence the very language of the text must be learned.

From these two circumstances learning became nearly synonomous with memorizing. In modern times, as knowledge has lost much of its sacred character, and as education has become only in part literary, the office of memory has fallen into discredit. The function of this faculty is certainly not to be absolute as in the ancient day, nor so limited as the modern extremist asserts. Its proper use is indicated by the composition of our education, made up as it seems to me it should be, of three parts of second-hand knowledge to one part of first-hand knowledge. Those who would mix the ingredients in a different proportion will, of course, assign a correspondingly different value to the memorizing process. In this connection there is one thing that should be carefully noted. The history of education has shown that memory is the conservative faculty. By this expression I do not mean that knowledge and intellectual progress are assured to the individual mind through the agency of this faculty, though this of course is true; but that national stability has been secured through systems of instruction based on the exact memorizing of religious, ethical, prudential and legal precepts. The most conservative and the most stable nation on earth is the Chinese; and it is not a mere coincidence that the education of this people from time immemorial has been based on a rigid process of memorizing. Under such a system of instruction continued through centuries, education becomes fate, the potency of ideas becomes absolute. Of course the bad side of this system is very apparent. The conservatism is so ingrained that it is an effectual bar to progress. There is scarcely a doubt that if the modern *laissez-faire* system were to dominate in the schools of China, national disintegration would set in after only a few generations. For a time hereditary conservatism would withstand the solvent of the "new education." A more striking illustration, if possible, of national conservatism through an education based on memory, is the history of the Jewish race, that nation without a country. The bond of ligation is a powerful one,—a rigid monotheistic faith; but this faith has been made a vital, universal bond of nationality through the very incorporation of the Law into the Jewish race through immemorial memorizing. The most ancient education of the Romans consisted almost exclusively in the verbal memorizing of the twelve tables; and there can be scarcely a doubt that the Roman VIRTUS was the direct consequence of this mode of education. Much of the flippant disparagement of memory would cease if the subject could be viewed in the light of historic results. Who can doubt that the stability of the Roman church lies in the memorizing of a rigid creed? Who can doubt that the weakness of many Protestant churches lies in a lax memorizing of creed? A universal weakness of Sabbath School instruction is well intended talk *about* the Scriptures instead of an upholding of Scripture that has first been memorized. If we conceive that one chief function of the American public school is to furnish the nation with successive generations of men and women fit for the high duties of American citizenship, ought not both the letter and the spirit of the Constitution to be impressed on the souls of our youth somewhat as the Twelve Tables were impressed on the souls of Roman youth?

7. Another general lesson taught by this historical survey is that education has always been moulded in accordance with political or religious needs; that is, the school, instead of dominating the State and the Church has been dominated by them. For example: Phœnecia was devoted to traffic; and so the art of computation was made a staple of instruction in her schools. The

small States of Greece, exposed to the ever present dangers of invasion, had need of a brave and hardy soldiery; and so gymnastic training of the military type was enjoined on all Grecian youth. Egypt was pervaded by the spirit of caste; and so the purpose of instruction was to prepare the son for following the occupation of his father. The preoccupation of the Jew was the maintenance of the sacred traditions, and so instruction became a careful process of indoctrination. The Reformation, by throwing on each human being the burden of his own salvation, made it necessary that every child should know how to read; and to meet this necessity, schools were multipled till all had an opportunity to learn to read. In cases where State needs were felt to be urgent and where there was not a prompt response to the public call, there was a resort to compulsion, as in ancient Sparta, and, in a measure, among the Jews, as well as in most European States of the present day. We may generalize these facts and say that the prevailing type of education during the whole historic period has been technical or professional, its purpose being to equip men for service as agents or instruments. Side by side with this narrower conception of education there has at times appeared the wider conception of education as a process by which a human being is to be wrought into the likeness of the highest type of his kind. I believe this conception appeared for the first time in Greece in the fifth century B. C. Plato had such an exalted conception of the State and of the qualifications needed for full citizenship, that in his scheme of training, technical education and liberal education became essentially one and the same. To be a citizen of the *Republic* was to be a man in the fullest sense of that term as then understood. These two conceptions, the narrower and the wider, of man as an instrument destined never to transcend his environment, and of man free to transcend his environment in obedience to his natural aspirations towards the highest type of his kind, have descended to our day, and their struggle for supremacy is involved in most of the educational polemics of the times. On this subject three opinions are held: 1. That education is to be of the technical type, the school being the place for acquiring a trade. 2. That education is to be of the liberal type, the purpose of the school being a general intellectual training. 3. That the ideal education is first general or liberal, and then special or technical, or that the best type of the human instrument is to be made out of the best type of man.

From the vantage ground we have now gained it appears that the history of education exhibits a series of contrasts; that in the ancient period certain factors in the educating process were brought into such prominence as to obscure other factors; and that in the modern period, by a natural law of reaction, these neglected factors assume the first place, while the prominent factors of the older system suffer a greater or less degree of obscurity. This period of oscillation, or the interval between these culminating points, is measured by centuries. We can say with historical exactness that the old system of education culminated at about the time of the Reformation, and that the present order of things took its rise at the same period. To these two contrasted systems, thus defined, have been given the distinctive titles, the Old and the New Educations. This description is significant and just. The term "New Education" has sometimes been given to scientific training as opposed to classical training. But scientific training is not even the half of an education. In a still more limited sense, this term has been applied to Kindergarten training; but at its very best this is scarcely more than the beginning of an education.

To this paper, already too long, I must add two observations: 1. The comprehensive study of the history of education will save us from the conceit of thinking that we are to look for much that is new in principles. M. Compayré, at the conclusion of his critical and masterly survey of this subject, speaks as follows: "The most of the essential elements which compose the art of human education have long since been brought to light, and the first duty of a modern teacher is to begin by carefully collating the recorded results of the past centuries of effort."

And finally, such a study of this subject as I contemplate, will teach the true mode of progress. "Progress," says Simon, "is not a force that acts by fits and starts, but is a logical and graduated evolution, in which the idea of to-day is connected with that of yesterday, as the latter is with a still more remote past."

DISCUSSION OF PRECEDING PAPER.

L. R. FISKE, Albion College, said:

MR. PRESIDENT—I find I am not in fashion. I find I have not written a word on the subject of the paper to which we have just listened. The subject is of such a nature I could not well have prepared a discussion until I had heard the address. I have no words of criticism to utter. The paper is very discriminating and quite an exhaustive presentation of an important subject. At this late hour, I may only advert to two or three points. I notice that our attention is called to the fact that the tendency in modern times is towards secularization in education. As to the agencies through which the education of the people is effected, this is very plainly true. In early times, during the Christian era, the State did nothing. The schools were established by the church. Religious convictions gave rise to measures for the enlightenment and elevation of the people. As moral and religious interests were regarded and felt to be more important than any other, and as the intellect cannot be dissevered from the moral nature, not only did the church lead in educational movements, but she did the whole work. She did not do too much, but the State did too little. In modern times, civil government has come to realize that educational functions belong also to the State. This does not indicate that the church proposes to withdraw from the field or is likely to do so, but that the State is entering the field to do what she ought to have done before. In this I rejoice. I believe in the common school system from the primaries up to the college and university.

There is another phase of the subject in which secularization is more seeming than real. Many have feared that our public education would be godless, that we would drift clear away from the old landmarks of a divine being as a personal God. And in connection with some of the theories put forth, many persons have plunged into skepticism and have lost sight of a Creator. But there is another side to this. Science, as now interpreted, brings us to the very threshold of a first cause, and what can be a first cause but a personal God? Turn your gaze upon this subject for a moment. Science was, until recently, defined to be the "co-ordination of facts;" it did not embrace the causes of things, but the present relations of things. The universe, we were told, is to be taken just as we find it to-day—existing relations, the action and reign of efficient causes, that is, causes existing in the present but ruling out of science, causes that produced the present.

But a little while ago, the theory of evolution was promulgated, and this theory must find a place in science. But there is no place for it there unless the domain of science be broadened. Hence we are informed that to understand a thing well, it is necessary not only to know what it is, but the process by which it has become what it is. This adds formal cause to efficient cause. You have not only force, but the plan according to which force acts. Now if science embraces formal cause as well as efficient cause, it takes us back to the very outcome of final cause. There is only one step from a plan to a planner, from order to intelligence, from law to a lawgiver, from a developed system to mind, from formative activity to teleology, from end wrought out to purpose, from order to mind. Thus we see that the stretching of science out beyond mere present relations to the source of those relations, brings us within the law of human intelligence, inevitably to the question of the origin of things. The conditioned tells of the unconditioned, and back of the historic universe, whose time relations as well as spatial relations science now has adopted, is infinite intelligence giving being to all things. Thus, whether evolution as held by one class of thinkers or another class be true, it has led scientists to open the way back to conditions which can only be accounted for by affirming a personal God. On this line, therefore, are we moving towards and not away from God. There is another question which calls for thoughtful attention, and which I would like to see fully discussed by this association; it is the question of order in school work. The old methods of school and especially college work are being in some quarters displaced by systems widely unlike the past.

This new departure is ably championed by President Eliot, of Harvard, as set forth in a paper read at Johns Hopkins University. Yale College has taken steps in the direction of which we speak. Other colleges are moving on the same line. I have not time this afternoon to outline the method, but only to say that it involves the study of the modern before the ancient languages, modern history before ancient, the present before the past, the empirical before the rational.

In view of the interest now awakened on this subject, it would be well, it seems to me, for the association to candidly and thoroughly consider the questions involved.

THE ELECTIVE SYSTEM IN HIGH SCHOOLS.

BY GEORGE N. CARMAN.

Michigan furnishes the world with the best illustration of Professor Huxley's educational ladder which reaches from the gutter to the university. Nowhere is there a system so well calculated to bring from the masses those who alone can elevate the masses as in our own Michigan. The plan is simple. At the head a university, which is designed to give life and vigor to the whole; at the foot, the primary schools, which may become graded schools when the school population in the district amounts to one hundred; as for the rest, it follows by the logic of events, it is regulated by the law of supply and demand.

The University which crowns our educational system is the best part of it. If we have any reason to be proud of our high schools, let us remember that they are what they are because the University has made their existence a necessity. The elevating effect of the University on our educational system is only

beginning to be felt. I believe that its influence through the high and graded schools on the district schools is the only hope of their elevation. It behooves us who are engaged in educational work to realize what the University is, what it has done, what it is doing, and what it is destined to do for the State, and to see that our work is in harmony with the head of the system. Whatever influence we may have in the field of our labors should be exerted on the side of the University, leading the masses to look to it as a part of their common school system.

There are in Michigan over four hundred graded schools, in nearly one hundred of which the school population is over five hundred, and in about two hundred of them over two hundred and fifty, the others, in accordance with the statute, having over one hundred on the census list. Wherever a department of the graded schools has been organized which does work in advance of the primary or district schools, our people have been pleased to call it a high school, as they have called our ponds lakes, etc. In many cases the name is manifestly inappropriate and we may not be suited with it, but those who do the christening think they know whereof they speak, and it must be as gracefully accepted as the teacher in charge of a school of two departments accepts the title of professor. It will therefore be understood that high schools, as used in this paper, refers to that work of our graded schools which is in advance of the district schools and not to the high schools alone, which may claim that the term belongs to them par excellence, because of their greater size and more advanced curricula. Although the designation high schools, does not occur in the constitutional nor statutory provisions of our State, it is none the less certain that what are now known as such were provided for under the head of graded schools. The anomaly of a school system with a base and a dome but no intermediate structure, has been clearly set forth by Judge Cooley in the Kalamazoo high school case.

The work of the Michigan high school is threefold in character, viz.: That which grows out of its relation to the University, that which grows out of its relation to district schools, and that which comes from the fact that it is the people's college. It is my purpose to lose sight of no part of this work in the present discussion. I believe that every high school should aim at becoming a college preparatory school. Not that this is the only business of our high schools, but it is their most important work, work, however, that need not, as it too often does, and ought not interfere with the work of preparing a majority of the pupils who do not enter college for their various vocations. There may be a course that is suited to the wants of all. I believe there is such a course, and, in the main, that that is the best preparation for college which is the best preparation for those who do not enter college. If the parish schoolmaster of Scotland can fit boys for college and teach the A B C's at the same time, our Michigan high schools ought not to find it impossible to furnish college preparation for the pupils who want it. I question whether the Scotch schoolmaster has as many recitations in a day as has our average district school, or neglects the ordinary English branches as do many of the high schools. Whether a school can fit pupils for college does not depend upon the number of teachers alone, nor the number of pupils, but it does depend upon the teacher and the pupil. There must be a teacher who knows enough to prepare a pupil for college and a pupil who knows enough to be prepared. That there are such pupils in the vicinity of every high school in Michigan is probable. I believe that every high school, if properly manned, could prepare pupils for college and do the rest of the work better for this very reason.

That this is not done and cannot be done in our smaller high schools as at present conducted, I willingly admit, and it is the purpose of my paper to propose a change that will make it possible.

Before considering further the work of high schools with relation to the University, I wish to glance at their other work. The fact that those in charge of our high schools have so generally of late assisted in conducting teachers' institutes and acted as members of county examining boards, has done much to bring the high schools into sympathy with the district schools, and has led in this association for a few years past, to the careful consideration of the needs of the district schools. It has seemed to me that questions having to do with the primary schools have been given undue prominence by our school superintendents. I have thought that some things have been said here that would indicate that it is the highest mission of our high schools to prepare district school teachers so that they can secure third grade certificates, and to teach boys to solve practical problems in arithmetic. The continual reviews that have been advocated, and the necessity of having a perfect knowledge of those facts called for in the county examinations, would seem to indicate that the ideal for high school scholarship should be preparation for county examinations rather than University examinations. I believe that the high schools should hold a relation to the district schools similar to that held by the University to high schools. That the high schools have a work of their own to do I freely admit, but that this is work which, in character, is essentially different from, or antagonistic to, the work which grows out of their relation to the University, I do not allow. It is only when the high schools are in vital connection with the University and the primary schools that they are a part of the system for which our State is justly distinguished.

So far as studies are concerned there is great liberty in our school system. The law prescribes no particular studies, except physiology with reference to the effects of alcohol and narcotics on the human system, leaving it to the local boards to lay down courses of study as they see fit, and the local boards in many cases leave it to the teachers in charge. The University, which legislates for the preparatory school, offers the choice of its several courses. We Michigan teachers have liberty, and liberty is glorious, but it brings with it additional responsibilities. I am a firm believer in Col. Parker's "Gospel of Freedom," and so, I imagine, were the founders of our system of education. I believe in the elective system as practiced at Harvard and in our own University. I am too democratic to favor centralization in educational matters as I saw it in Ontario last summer, or as it is practiced in Germany, but I think the matter of freedom in our district and high schools is carried too far, and liberty has led in many cases to confusion and inefficiency.

Probably, of all schools, the elective system, pure and simple, holds sway most supremely in our district schools. It is here that the pupil is not only allowed to study what he pleases, and follow unmolested the bent of his own inclination, but he very often selects his own text-book. It is not unusual for a young man, educated in such perfect freedom, to present himself to a high school and ask permission, though unable to read and write with the least accuracy, to review his higher arithmetic, which he has ciphered through three or four times, and study algebra and geometry or natural philosophy. The efforts of our Honorable Superintendent to grade the district schools, and secure uniformity of text-books in the same school, are calculated to impose some restraint on the elective system as in vogue in schools of this sort.

In the graded schools, although pupils are usually held to a well defined course of study during the primary and grammar grades, on their entrance into the high school there is all the freedom that the most devoted admirer of the elective system could ask for. This freedom, coming at an age when the pupil is utterly incompetent to make a reasonable choice for himself, and at a point in his studies where parents are very often unable to give intelligent advice, a great responsibility is thrown upon the teacher. The responsibility of the high-school teacher at this very important juncture is greater than that of any other teacher. The high-schools are the natural feeders of the colleges and university; and whether they feed or not depends very largely upon the teacher in charge. I found, on taking up my work in the high-school and starting new classes, that I had at once to make many important decisions. Whether thirty or three began Latin depended upon what I said. I recalled with gratitude my teacher, the late Geo. E. Cochran, who told me to begin Latin, and so I told them all to take Latin, and had a class of thirty, several of whom are now in the University. The importance of the decisions which our system devolves upon us who have charge of high schools, is such that we need all the wisdom that comes from mutual counsel and the consideration of the questions which are left to us for decision. In our high school courses of study about one-third of the work is common, that is, required for all courses; the remaining two-thirds depends upon the course chosen on entering the high-school. Of the required work the greater part is mathematics. If the above is all the common ground to which all the pupils of the high-schools can be restricted, it is possible for high-schools having eight or ten teachers, like Ann Arbor, to prepare pupils for college; but other schools must step aside, and Michigan's system is no system at all, breaking down just where it should be strongest, between the University and the graded schools.

In discussing the elective system in our high schools, I wish to consider why the elective system has been adopted, where the work of election may properly begin, and what studies should be required in all high-school work.

In the matter of high-school curricula, the University legislates for high schools, and its influence should be felt as certainly as if the curriculum of every high-school were prescribed on the statute books. This is as it should be. Who doubts that the University is better prepared than the State Legislature to legislate on this subject? In a new State like our own, where a new system is on trial, at a time when the whole world is involved in doubt as to what subjects can be most profitably taught in secondary schools, our University has acted wisely in legislating with caution, leaving to the high-schools great freedom of choice, by offering several courses, the requirements for which are essentially different. Changes recently made in the requirements of the University have been in the direction of relieving the high-schools from so great a variety of preparatory work by accepting equivalents in some cases. I believe the University could do still more in the direction of making the requirements for all courses more nearly uniform, thus making it possible for high-schools to give more unity to their work by concentrating their attention on fewer subjects. Although the character of the instruction given in the high-schools should depend upon the University rather than the district schools, it cannot be denied that the great freedom practiced in the district schools has made it difficult for high schools to hold pupils to regular systematic work. Then too, the natural assertion and impatience of restraint

felt by the American citizen is opposed to prescribed high-school work. Add to these considerations the fact that the work of our high-schools often depends upon the education or hobby of the superintendent or principal, or his sympathy or want of sympathy with the University, and it is not difficult to account for the want of uniformity in the curricula of our high-schools and the general prevalence of the elective system.

That the high-school pupil should have some choice in the work done I admit, but that two-thirds or more should be elective does not seem reasonable. I take it that the ancient classics have held and still hold the chief place in secondary schools, the world over, because they have ranked as the humanities, and have given direction and unity to all the work done. At a time when there was no English literature the Greek and Latin classics were styled, and justly too, the humanities, because a taste for the literature of Greece and Rome and a knowledge of their languages and history were most humanizing in their effects, and it is the main end of education to humanize. So far as colleges and universities are concerned the ancient classics may still be among the humanities, but no one would venture the claim that, as taught in high-schools, they are entitled to rank as such. Have we any humanities for our high-schools? If so, all will agree that there is need of their being placed there. In order to give unity to any course of study there should be some central line of work to which a good share of the time of each pupil is given. Is there some central study for our high-schools? The fact that Latin has so well served this end explains why the best secondary schools have been Latin schools. To-day, through the medium of the English language, there is open for our high-school pupils, a field of study in literature, history, and English which may justly claim to rank as the humanities, and which may properly serve as the central study of all high-school pupils. To the mathematics, which at present constitutes about all the work required in all courses in our high-schools, I would add literature, history, and English, which last should include grammar, composition and rhetoric. I would expect all pupils to engage in these required studies simultaneously, taking in addition such other work in foreign languages or science as their needs and capacities may seem to justify. If literature, history, and English, taught with reference to one another, be required as the central study in our high-schools, other studies may be safely left to the demands made upon the schools from all directions.

The connection between literature, history, and English is such that they can be most profitably taught side by side, each tending to make the others interesting and instructive, and all together making up a most essential part of every one's education. History gives unity to the whole. In the high school the pupil is at an age when the facts of history are most easily acquired. Here his historical studies should begin, that, as he advances, the "centuries behind" may "like a fruitful land repose," and that he may see something of that "one increasing purpose" which runs "through the ages," and that he may be among those whose "thoughts are widening by the process of the suns." History and literature are most closely interwoven. In the light of history, all literature is intelligible. On the other hand, literature clothes history, invests it with interest, makes it live. Here we have the facts of history built into shapely and interesting structure. In the childhood of the world there was much literature but little history, and yet nearly all the literature was historical in character; and so, I take it, the young in studying history will get more help from historical literature than from history proper. Such history as Homer and Virgil wrote is interesting to all and easily remem-

bered, and, although the stories told are not to be believed, still that insight into the customs and beliefs of the ancients is acquired which may well be considered the most important part of history.

I am convinced that a good education depends as much on a cultivated taste as upon mental power or a knowledge of important facts. A cultivated taste does not necessarily pre-suppose a college education. I believe with Whittier that ours

> Should be the homesteads of a land
> Where whoso wisely wills and acts may dwell
> As king and lawgiver, in broad-acred state,
> With beauty, art, taste, culture, books, to make
> His hour of leisure richer than a life
> Of forescore to the barons of old time.
> Our yoeman should be equal to his home
> Set in fair, green valleys, purple-walled;
> A man to match his mountains, not to creep
> Dwarfed and abased below them; I would fain
> Invite the eye to see and heart to feel
> The beauty and the joy within their reach.
> O Golden Age, whose light is of the dawn
> And not of sunset, forward, not behind,
> Flood the new heavens and earth, and with thee bring
> All the old virtues, whatsoever things
> Are pure and honest and of good repute,
> But add thereto whatever bard has sung
> Or seer has told of when in trance and dream
> They saw the Happy Isles of Prophesy!

Through the medium of the English language, the greater part of "whatsoever bard has sung or seer has told of" is within the reach of our pupils. "In the education of youth," says Blair, "no object has in every age appeared more important to wise men than to tincture them with a relish for the entertainments of taste. Good hopes may be entertained of those whose minds have this liberal and elegant turn. * * * Literature, as no other study, cultivates the taste. * * * Taste is the most improvable faculty. * * * In taste, exercise is the chief source of improvement."

After a pupil has learned how to read, it is quite as important that he uses this acquirement in cultivating his taste as in acquiring information. One who has learned to read the English language has laid open before himself one of the richest fields of literature in existence. For him who has no taste for good literature, it may as well never have existed. While the student is providing himself with text-books, may he not be allowed to have one book that he will look at after he leaves school? one book that was not written to sell? one book that will answer for his library? While he is strengthening his mind with the "mental gymnastics" of the ancient languages, wouldn't it be well to give him a little "mental diet" in the shape of an English classic? While a boy is learning practical arithmetic so that he may keep his accounts, may he not be acquiring a taste for that which will fill his leisure hours with enjoyment and profit? While the girl is acquiring that information which will enable her to get a third grade certificate and teach a district school, may she not with profit become familiar with at least one English masterpiece? There is but one answer to such questions as these, and now the publishers of standard authors are finding that their books are running opposition to the books of the educational publishers, and they are vieing with one another in issuing their books in forms suited to use in public schools. That it is right to teach our pupils to read the best authors is decided in the affirmative. The

questions of how much and in what way are now in order. I have not been able to ascertain why it is good to open the door and lead some of our pupils into the fields of good literature and not others. It is needed as much in one course as in another; as much by the boy who is to follow the plow as by the one who enters college. It ought to be in the ninth grade, pupils of the tenth need it, those of the eleventh want it, while those of the twelfth must have it. That English literature found no place in the schools when there was no English literature, or when the English classics were becoming established as such, was inevitable, but now when English literature is not only unsurpassed by any in existence, but has been made to tower above all others through the genius of Shakespeare, there is no reason why it should not hold the first place in the curricula of our schools. The study of literature is calculated to lead the mind up to the plane upon which intellectual pursuits are most advantageously engaged in. It furnishes that inspiration which carries one through the drudgery of the most difficult studies.

As to the method of teaching literature, I believe in the Hudsonian, where the most essential requirements of the teacher are an eye that sees, a heart that feels, and a sympathy that leads others to see and feel "The beauty and the joy within their reach." "As to the test of the success of the work," says Blair again, "only pleasure in general can at first be expected." To those who object that if things at school are made too easy and pleasant, school will cease to give the proper discipline, I reply with Quick, referring them to the authority of Wordsworth, who speaks of the "grand elevating principle of pleasure, by which man knows, and feels, and lives, and moves." Again he says: "We have no knowledge, that is no general principles drawn from the contemplation of particular facts, but what has been built up by pleasure, and exists in us by pleasure alone."

The dependence of history upon literature was formerly such that history was properly considered a mere appendage to literature, but history as written and studied at the present time is distinct from literature. It has demonstrated its right to take front rank among the most practical and humanizing of studies. We must agree with Professor Adams that "History quickens the intelligence, improves the judgment, enlarges the sympathies, and broadens the charities of life." It is practical. "He who is unwilling to investigate and weigh probabilities can have no good reason to hope for any practical success whatever. The historical method is the method that must be used in the common affairs of every day life." When taught in connection with literature and composition, it may be made the most interesting of studies.

The same considerations which have lead the English to overlook and disregard their literature in a scheme of studies, explains their neglect of the study of the language itself, which, although the most grammarless of tongues, still requires for its mastery more study than must be given to other more highly inflected languages. I remember to have heard Professor Geo. S. Morris remark, that he found it necessary to read as often as once a year some little book on the correct use of English, in order to correct errors into which he may have fallen, and to enable him to speak and write with precision and accuracy. If it is necessary for the distinguished professor to give such attention to the correction of his errors, isn't it worth while for the student of the high school to give continuous attention to that subject, the mastery of which is at once so difficult and so important? Locke deprecated the fact that the young were not instructed in their own language, "Though they have daily use

of it, and are not seldom in the future course of their lives judged of by their handsome or awkward way of expressing themselves in it."

History and literature can be taught in such a way as to give the pupil abundant opportunities to make a practical use of his mother tongue, both in reading, writing, and speaking. This is practical work in English, "Learning to do by doing." To learn history, the pupil must glean rapidly information from all accessible sources. This is a practical test of a most important kind of good reading, silent reading. As a test of his attainments, he may be required to put in writing, or give oral expression to his knowledge of, the history he has read or studied, or reproduce extemporaneously the stories and incidents in which he has become interested in his reading in literature. He should also be permitted to add to the stock of historical information in the possession of his class, by reading to them carefully prepared essays on subjects which he has better opportunities of investigating than the rest of his classmates. History may thus furnish the subject matter, the chain of events which adds interest and binds together all the work done in literature and English. But language, like architecture, has an artistic as well as a practical side. It is both useful and ornamental. It is not only the medium by which man makes known his wants and records his deeds, but it may serve as a source of delight and enjoyment in itself when put in the form of literature and made the channel for the best that the mind of man has conceived. If English itself, the medium is a fit subject for study, may it not be studied to best advantage when the student is making practical use of it in his work in history and is becoming familiar with its artistic use in literature? The significance of grammar is apparent to one who is daily wrestling with the difficulties of composition and correct speech, and rhetoric is appreciated when taught in the concrete, by one whose mind is well stored with the similes of Homer, the metaphors of Shakespeare, and the oratory of Burke and Webster.

In work in literature, English, and history the teacher is brought into closer contact with his pupils and given more freedom in his methods, in a word, he must do more teaching and less hearing recitations than in the other work of the school. It is here that he becomes, in an eminent degree, the pupils guide, furnishing inspiration, giving assistance, and pointing out errors when necessary. No studies are so well calculated to keep the teacher himself in vital contact with what is best worth knowing. Whatever work he does in history and literature is just that which is best suited to counteract that narrow pedantry which is the peculiar danger to which we teachers as a class are especially exposed. Such studies, withal, furnish a pleasant relaxation to one whose energies are overtaxed by the demands of the day. I know of no reason why these studies, so far as taught, are usually required in the English course and not in the classical, other than that there is time to study them for those who are not studying the classics or sciences in a four years' course; not that they are needed by the classical or scientific student less than by the one in the English course. But why must each course be just four years long? Let the length of the course depend upon the amount of work done and the time required for each one to do it.

Each of the studies under consideration has reasons for holding a place in the curriculum independent of the others. In our high schools they are generally given the fag-ends of time or treated as mere appendages of other studies. The connection between them is so apparent that it has been thought in some cases that they could be profitably combined in the same exercise, but

it is distracting and unsatisfactory for a pupil not to know definitely what he is studying and what is expected of him. If we teach literature, let us teach literature; if history, history let it be; if English, then teach English. One has no right to teach history and grammar and call it literature. By such a course, the pupil will probably learn just enough of all three to give them a good letting alone in after life.

Considerations such as the above have led me to believe that pupils of the high school should be engaged during their entire course in the three studies of history, literature, and English. I have divided my high school into as many sections as there are teachers available and competent to give instruction in the three branches. Each section meets three times a day, once for the study of literature, again for English, and afterwards for history. In each section the work in literature and history is so chosen as to give unity to the whole.

If the studies, for each of which this paper is asking a place on a par with mathematics, deserve such a place, the question of what a pupil shall study in the high school is greatly simplified. There is, then, common ground upon which all pupils alike may be taught, whatever course they take in college, and whether they enter college or not. The question of classics or science may be settled in the colleges. There is preparatory work for the preparatory schools which is fundamental, and without which classical and scientific scholarship of a high degree is impossible. In the education of the youth of our land shall we remain content with stuffing them with facts and sharpening their wits, or shall we bring to the front those studies which preëminently fit a man for life, those studies which* "best enable him to enter into the thoughts, the feelings, the motives of his fellows?" "At present," says a writer in the January Atlantic, "the intellectual furniture of a well-bred man, beyond a conversational acquaintance with the talk of the hour, is a matter of haphazard, an unlimited curiosity being perhaps the most useful trait." Shall we, as teachers, be satisfied with this ideal of "intellectual furniture?" As for me and my school, so long as I have the liberty in which, as a Michigan teacher, I rejoice to-day, we shall give to the English humanities the place that has been advocated for them in this paper. Literature and history, through the medium of the English language, are entitled to rank as the humanities, and I believe that if we will place them before our pupils, we shall agree with John Milton when he wrote: "I doubt not that ye shall have more ado to drive our dullest and laziest youth, our stocks and stubs, from the infinite desire of such a happy nurture, than we have now to hail and drag our hopefullest and choicest wits that asinine feast of sow thistles and brambles, which is commonly set before them as the food and entertainment of their tenderest and most docile age."

DISCUSSION OF THE PRECEDING PAPER.

SUPT. E. B. FAIRFIELD, JR., of Grand Haven, said:

The elective system in our high schools is practically limited by the size of the school, the number and ability of the teachers employed, and the educational demand of the district. If the principal of a small school gives all his time to teaching advanced pupils and leaves the lower departments entirely to

* Dr. Temple.

themselves, he greatly wrongs the school and the district for the benefit of the few. If the province of our common schools, including the high school, is to lay the foundation upon which may be erected any superstructure, the question at once arises: How far must all pursue the same course of study in order to secure equivalent results? This question also arises: Is the foundation composed of studies of "knowledges," or of intellectual development? If the last, how far are the same studies required to produce the same degree of development? Upon this point Fitch says that "Mental development, though multiform in its manifestations, is at bottom one process."

But the requrements of the day are, not merely for disciplinary studies but for certain "knowledges," the culture accompanying them being incidental and not an end in itself. A uniformity of studies is becoming necessary in order to meet this demand. The more general the agreement upon certain studies the more extended becomes the uniformity of our high school courses and the more limited the "electives."

DR. L. R. FISKE, of Albion, said:

I am pleased with the frankness of the paper of Prof. Carman to which we have listened. But I desire to ask a few questions. I trust that in this I am not impertinent. Is it true that the University "prescribes courses of study" for the high schools of the State? Does the University legislate for the high schools? Are the high schools established to prepare for the University? Is this the work for which they are instituted? Or are they independent schools, their principal office being to supply the means of education of a considerably high grade for the community, the preparation of students for college being incidental? Are they so connected with the University that their functions are to prepare students—not for college, for any college—but for the University as a special institution? In all the villages and cities where high schools exist there are families belonging to churches which have colleges in this State and these families patronize these high schools. In view of this fact would it be wise to urge the young people of these families away from their own colleges to the University?

Although I have lived in this State nearly fifty years, latterly my work has been of such a character I do not claim to be as familiar with the school laws and customs as I might be. I therefore ask for information. The frank utterances of the paper read to us prompt me to ask these questions, which I do in the best of spirit and with the sole desire of getting at the facts involved in this whole subject.

W. H. PAYNE, University, replied to Dr. Fiske:

In answer to first question he said: "Of course it does not. The University is a good sized establishment but it is not large enough for that. There are certain high schools which do conform to University requirements. Supt. Carman is right in saying there is a natural affinity between high school and the university. We ought to respect the requirements of the University. If the student is prepared to enter the University he will get into Hillsdale or any other college."

Prof. Payne then referred to the branches of the University at Pontiac and Niles and told how the high schools took rise. That the law contemplates a relationship between high school and the University. That there is not a high school in the country comparable to the high school of Michigan. Continuing he said: What has been the cause of this? Why is not the high school of Indiana, why are not the high schools of Ohio equal to those of Michigan? Minnesota's high schools are advancing rapidly because her

system is copied from Michigan. I hope we shall meet on common ground; there shall be a place for all. The University of Michigan is not a godless, school. The State of Michigan will educate its young men. The school is never going back to the tutelage of the church. That time is gone forever. We ought not to take narrow views. No right to say to Hillsdale, You shall not educate young men. The University does not prescribe for high schools though there is a ladder between the public school and the University.

MR. CARMAN, of Union City, arose to explain, saying:

"When I say the University legislates for high schools," I mean that high schools conform to requirements in order that their graduates may enter the University, though of course, they attend college where they please. Of course high schools have a work to do independent of the University. The University has made the high school a necessity.

F. M. TAYLOR, Albion College, said:

It seems to me that local and particular interests are entering too much into our discussion. For my own part, I would like to consider some phases of the matter in more purely academic fashion. Passing entirely the question of what the relations of the different parts of our educational system actually are, I wish to speak simply of what those relations ought to be. In particular I wish to controvert the first half of Professor Carman's paper, which treated of the functions of the high schools, and contained views of the matter which seem to me highly mischievous, wherever expressed, as tending to carry us further and further in a path along which we have already gone too far.

What is the true office of the high school? Three answers occur to me this moment. First, that of Professor Carman, according to which the chief functions of the high school is to prepare students for the University. Secondly, that of the speaker who opened this discussion, and who argued that the business of the high school is to provide general culture for all, including those who intend to go to college; and, thirdly, that which I hold and wish to advocate, which is that the function of said high school is to provide general culture for all except those who intend to go to college. Now this view, I know, seems very heterodox, and I must try to defend it.

By the existing state of things, which is substantially in accord with the second of the above theories, we have that formal unity so attractive to most minds, while real expediency is, I believe, almost wholly sacrificed. In this system everything is homogeneous, from bottom to top. Boys of every grade of capacity, and of every prospective function in life, are educated together as long as they are educated at all. If one leaves the rest at the end of the primary, or of the grammar school, or of the high school, it is not because he has gone to some school better suited to his needs, but because he has given up further education altogether. The grammar school, the high school, the university, each in turn does substantially the same work as the school below it, save that it goes a little further. There is, thus, in our system, very little differentiation of functions, and no adaptation of training to the place in life which the boy is to fill, save in so far as one school by means of elective courses attempts to perform the functions of three or four schools, and performs none of them well.

Something like the true system, it seems to me, is to be found in Germany, where, by universal admission, education has reached a higher development than in any other part of the world. In Germany all have the same training, only in the kindergarten and lowest primary schools. From this point the

ways of the different boys diverge in accordance with the work which they expect to do in life. For those who expect to be artisans, the Volkschulen and the Bürgerschulen are provided; for prospective tradesmen, and mechanics of higher grade, the Bürgerschulen, the Realschulen, and the technical schools, while those who purpose to have a part in the solution of the highest problems of social life must complete a course in the gymnasium (or, for some purposes, the Realschulen) and the University. Now to apply the lesson of Germany's experience to our Michigan system, instead of pushing the high school into the place of preparatory schools, we should rather return to the earlier practice, to which Professor Payne has alluded, of having branch schools in various parts of the State, whose special business it should be to prepare students for the University.

That this system would be an immense improvement upon the present one can be shown by a simple study of the facts in the case, without any reference to the experience of Germany. First, the present system is wholly unfair to the average boy who has no intention of pursuing his studies further than the high school. A large share of the best energies, as well as of the time of his teachers, is devoted to the two or three (or possibly twenty-five) per cent. of his schoolmates, who are looking to a university career. Remove this abuse and you will have far less complaining from tax-payers. The need of the average boy, for whom the public schools should provide, is a culture at once general, sound, and practical. Such culture he does not get in a school devoted to preparing boys for the University. He complains, and he has a right to.

But, in the second place, the present system is wholly unsatisfactory from the standpoint of the few who intend to go on with the higher work. Not only justice to the masses, but also the interest of higher education itself, demand the establishment of preparatory schools corresponding to the gymnasia of Germany. For, first, the public schools can not provide adequate teaching. Speaking to this audience, I trust I will not be understood as meaning any disrespect to Michigan teachers. It is simply self evident that no man, however capable, is able to divide himself over all the subjects which fall to the share of the average high school teacher, and yet be a master in any one of them. We hear it frequently remarked that the German student who has completed the gymnasial course knows more than the average American college graduate, and no wonder. The average German boy is no brighter than the average American boy; but during the nine years that he spends in the gymnasium he is trained by teachers, every one of whom is a master in the department which he represents. In the average German gymnasium the teaching force is organized like the faculty of one of our American colleges. There is a special teacher for Greek, for Latin, for History, for Science, etc. Those who have the more advanced work in their hands, are expected every year to produce some work of merit in the department to which they belong. Naturally German boys are prepared for the University when they get to it.

In the second place, the present system is disadvantageous to the brighter boy because he is greatly hampered by being obliged to work in a considerable number of his classes with boys who are inferior to himself in capacity and without the stimulus of his aspirations. They, being in the majority, determine both the quality and the quantity of the work done by the class. Some years ago, I taught for a few weeks in the high school of a friend who is present in this convention. One class in Olney's Geometry struggled hard with three propositions a day. I don't know whether this is at all typical, but it strikes

me as wholly unjust to a boy who is worth sending to college, to keep him at work in a class of such quality and strength.

But, in the third place, Professor Carman himself has brought to light an objection as great as any that could be proposed. He has urged that, in order to increase the number of high schools able to act as preparatory schools, the University should diminish the number of courses which it will accept for entrance. Now, at a time when not only popular sentiment, but even that of leading educators, is in favor of pushing election still lower in the course, any system which necessitates a movement the other way condemns itself. I need only remind you of the example of Johns Hopkins and Harvard, where modern languages are now accepted in lieu of Greek in the matriculate examination, and the warm advocacy of a greatly extended application of this system by President Eliot, of Harvard, in the address already alluded to, published in the June number of the Century. Surely, this is no time to narrow the road to the bachelor's degree.

Very many other considerations, I doubt not, might be adduced to show the disadvantages of the present system, but I must not take your time further. I only wished to enter an emphatic protest against every sort of agitation which looks to the increase of the number of high schools trying to perform at the same time the function of common and preparatory schools. All such agitation, whatever its source and whatever its purpose, seems to me really hostile to the true interests of higher education.

MR. CARMAN, in replying to MR. TAYLOR, said:

We are not in Germany; we are common people. Harvard University is not pushing elective system.

MR. TAYLOR then said:

The student is admitted to Harvard College without an atom of Greek.

PROF. PAYNE then arose and said:

I want to contrast the German schools with our own schools. In Germany there are three classes: the humble class, who perform manual labor; the middle class, which have better advantages; and the higher class, that may enter the university. Behold the picture presented on graduation day of our American schools! The son of the washerwoman, the daughter of the drayman, the farmer's son, the banker's daughter, sit side by side, and he carries away the honors who merits it by his industry. This cannot be done in Germany, France, or England. There are three pyramids in the German system; the son of the aristocrat is at the summit. There is only one in ours, and every boy or girl in Michigan has an equal chance. I feel deeply grateful that our model is not after the German. I am proud of our schools; they are the glory of a free state. No caste in our school.

PROF. GEORGE then asked:

The University faculty will take care of the University, the Normal school faculty will take care of the Normal school, but who will take care of the common school?

MR. GRAVES, of Ann Arbor, said:

He was surprised to hear college men talk so. In an allusion to the remarks upon Germany and the German schools, he "brought down the house" by telling the story of the country boy who went to the village school, and how the stubborn calf was recommended to be sent to Germany.

PROF. A. E. HAYNES remarked:

That the colleges, high schools, and university were somewhat mixed. He then called the attention of the Association to the passage of the bill regulat-

ing instruction upon the subject of alcohol and narcotics. He said: "The Legislature, by almost unanimous agreement, had passed this act, thereby building much better than they knew." He then presented his resolution bearing upon the subject, a copy of which appears in the minutes.

Messrs. Church, Fairfield, and Barr then followed Mr. Haynes, their remarks bearing principally upon the resolution.

METHODS OF TEACHING THE ENGLISH LANGUAGE IN GRADES BELOW THE HIGH SCHOOL, AND IN DISTRICT SCHOOLS.

BY PROF. AUSTIN GEORGE.

In the popular mind, English Grammar is the science of speaking and writing the English language correctly. English Grammar in the schools should doubtless coincide with this idea, and its purpose should be, as the books say it is, the securing of correct oral and written speech; but it is only saying what is in everybody's mouth, to say that grammar as ordinarily pursued, fails of this result. Knowledge of the rules of grammar is no indication whatever of ability to use language correctly. My position in the Normal school for the last six years has brought me in contact with hundreds of young men and women, all more or less versed in technical grammar. I have become associated with these in such a way as to know their habits of speech, and I found this to be the case: some of the most proficient in technical grammar—even to excellence in analysis and parsing—are exceedingly deficient in ability to talk or write gramatically; while on the other hand, some weak in the science, are yet strong in the correct use of language. I recall one young woman whose oral and written speech was a model of correct and beautiful English, but who was absolutely ignorant of technical grammar—having never studied it a day.

I do not propose to make an onslaught on the study of grammar, for I fully believe in it. Grammar sharpens and disciplines the mind, and especially trains the judgment and the power of classification; but as a science it does not teach the correct use of language: early association and early training determine this; and so it turns out that those who come to this study with bad habits of speech, generally leave it with these habits little modified. Improvement usually comes in another way: if one's social or business relations are of such a nature that bad English is a source of shame and reproach, pride and interest are alike involved, and improvement may result. But the method is always the method of childhood: only the use of correct forms will establish their use. In a recent speech, General Sherman is reported to have said of military discipline, "I am convinced by actual experience that habit is a more valuable quality than what is called courage." So in the practical use of language we may say, good habit is more valuable than science; and we may be sure that the main purpose in language teaching should be to fix habits of correct oral and written expression.

Power and elegance of expression—that is, what there is to expression beyond mere grammatical correctness—depend upon the ability to interpret; and interpretation depends upon and necessarily demands appreciation.

Appreciation has not unfitly been denominated a sixth sense. Little effort is put forth to cultivate it; whatever of appreciation children have, generally comes to them from pursuing other branches of study, and from the maturing of their minds, rather than from any conscious, well-directed effort on the part of the teacher to stimulate it. Should the teaching of English in the elementary schools aim to cultivate this sense? Yes, if we are to make English of the highest possible benefit to the child; if we are to introduce him to the mystery and beauty of language; if we are to display to him the power of speech; if we are really to secure elegance and facility in expression; in short, if we are to shape our teaching so as to make English, which is the one and only language of the average American child, as genuine a culture as is a foreign tongue to the few who properly pursue it.

Our purpose then in the teaching of English will be: in oral speech, grammatical concord with elegance; in written work, grammatical concord, accuracy in spelling and use of capitals and the various marks of punctuation, together with facility in work; and in addition to both of these, but running all along through the school work, a careful stimulating and developing of the sense of appreciation as the fundamental and essential of accuracy, elegance and power.

In the practical work of teaching English, matter and method are progressive; and are so intermingled and mutually dependent that the presentation of methods can hardly be made apart from some consideration of the material employed in language work. The matter includes the knowledge we are to impart and the material employed in teaching it; the method considers the manner of using the material in imparting and fixing the knowledge.

Intelligent method is based upon conditions as they actually exist, and will adapt itself to circumstances; hence instruction should be preceded by certain preliminary work designed to show the language status of the class. "Before going into business, we take an account of stock." We will do this by getting the children to talk; we will question them on things at home, and on what they have seen on the way to and from school. A little skill here will secure free expression on the part of the children, and will enable the teacher to observe individual peculiarities; to determine the average stock of words that the children possess, and their ability to speak correctly; also their deficiency in words and incorrectness in expression. Deficiency is as much to be noted as proficiency.

Following this preliminary work should be lessons on objects peculiar to the school room, which are probably new to the child, and which he should know in order to feel at ease, and to comprehend readily the requirements. Desk, bench, black-board, crayon, chalk, pointer, chart, map, wardrobe, etc., etc., should all be made clear to the child, and the names and ideas associated.

In order to understand the teacher, to answer questions intelligently, and to describe objects freely and accurately, children need some acquaintance with the qualities of things. A knowledge of the following is desirable:

1. Shades and colors.—White and black; red, blue, yellow; orange, green, purple; violet, brown, etc.
2. Weight.—Light, heavy.
3. Lines.—Straight, crooked, curved, bent, broken, etc.
4. Surface.—Smooth, even, rough, broken, flat, plane, curved, etc.; also boundaries, as face, edge, etc.
5. Form.—Square, round, circle, cube, sphere, ball, etc.
6. Position.—Right, left, top, bottom, corner, center, middle, etc.

7. Sound.—Loud, soft, high, low, harsh, sweet, etc.

8. Taste.—Sweet, bitter, sour, etc.

9. Smell.—Agreeable, disagreeable, pleasant, unpleasant, sweet, foul, putrid, aromatic, pungent, etc.

These may be taught greatly to the advantage of the children, before they have learned to read. The quality should be made real by being taught objectively. In no other way will the word and thing become so inseparably associated that the one brings up the other. Since words are only signs of things, the thing or idea should be developed in the mind before supplying the word.

As soon as possible after entering school, the child should be taught a system of penmanship; progress in language and reading alike demand this. The stock of words and sentences which the child acquires, is valuable to him for all the purposes of language, only as they exist in the mind as word-forms and sentence-forms—things that can be represented to the eye, as well as to the ear; that can be reproduced by the hand, and not by the voice only. Acquisition is completed only by reproduction; and so penmanship, as a means of expression, becomes necessary to acquisition.

The method of teaching new words—whether quality, action, or relation—should be governed by the following considerations:—

A child does not know a word simply because he is able to recognize it when he hears it or sees it; he must thoroughly know the idea which the word is intended to represent, and the spoken or written word must instantly recall this idea to his mind. Now as he may wish to use this word in speaking to others, he should be able to pronounce it correctly; and as he may wish to use the word in writing to others, he should be able to spell it correctly. Then the order in teaching new words should be: first, the meaning or idea; second, the pronunciation; third, the form or spelling. A child does not know a word for the practical uses of life, until he knows it thoroughly in these three aspects. An application of these principles should be made at once and all along in the reading work; a child on the last lesson of the first reader, should know in this threefold way all the words of the preceding lessons; and the same should be true of the second and third readers. I am satisfied that apparent progress is accelerated rather than retarded by this careful method, while real progress is enhanced beyond comparison.

Spelling includes not merely the letters in a word and their proper arrangement, but also the necessary use of capitals, the apostrophe, and the period as a mark of abbreviation,—that is, the complete form of the word. These can best be impressed on the mind by writing.

The systematic teaching of punctuation will include diacritical marks, and will lead up to the use of the dictionary. If the reading books in use in the school employ diacritical marks, it will be sufficient to teach them as they occur in the lessons; the children will not, however, really learn them, except as they are drilled in their critical use by frequent blackboard and seat exercises in marking particular words and lists of words. I am aware that some condemn the teaching of these marks; but I know of no other way to secure the intelligent and easy use of the dictionary, which certainly is essential.

I have thus far dwelt chiefly upon words; for inasmuch as language consists primarily of words, the first effort in language teaching should be in the line of words. But as all complete speech consists of words combined into sentences, the second effort in language teaching will naturally be the arrangement of the words into sentences. The use of words to express ideas,

demands the sentence. Grunts, exclamations, head shakes and hand signs, although they express ideas, are not language in any high sense: they may do for animals, but civilized man demands the sentence. We should aim to secure the full, free and correct expression of ideas by the child; in short, to secure the use of the sentence. Under the constraint and embarrassment of the school-room, the child is inclined to signs and monosyllables; if these are accepted, ability in sentence building is not cultivated. Children should be encouraged to a free and full expression as a basis for intelligent teaching and training.

Two axioms of language culture should be ever present in the teacher's mind: Children learn speech by imitation, and Doing is a necessary condition of Knowing,—and the teaching should be based on the idea that children cannot be scientific; that they learn correct forms in both words and sentences by imitation; and that imitation means actual doing, not hearing merely. As in words, the common forms should be at such complete command that they can be reproduced automatically as it were; so in sentences, the forms of simple sentences should be fixed in the mind so thoroughly that their construction is not a matter of thought. The declarative, interrogative, and exclamative forms should be exemplified and practiced in writing, until the specific idea and form of each are so associated, that the idea compels the form.

Since imitation and doing are the ground-work of our teaching, the method demands: first, the correct use of language by the teacher; second, the re-phrasing of all incorrect expressions made use of by the children, and a correct re-statement of the thought by the teacher, and the child or class. For instance: Johnny says of his pencil, "It hain't got no point." Teacher says, "That's a fact, Johnny's pencil hasn't any point. It hasn't any point." "What do you say, Charlie?" Charlie—"It hasn't any point." Teacher again, —"Charlie says it hasn't any point; what do you say, class?" Class, altogether—"It hasn't any point." Teacher,—"Johnny, what do you say about your pencil?" Johnny—"It hasn't any point."

Children may early learn what are the common grammatical blunders that they themselves, their mates and their parents make. They must be trained to notice errors whenever they hear them, and to be mentally disturbed by them. This is a development of the critical faculty, and I have observed that the development of the critical faculty is the real beginning of improvement when one has errors of speech to correct. I am aware that when children first enter the critical stage, they are sometimes disagreeable to their elders; but this results, mainly, from the frequent solecisms of their elders, and their dislike of being corrected by children—or by any one else for that matter. Notwithstanding its discomforts, I say, stimulate the critical faculty as the very basis of conscious progress. Its proper exhibition and use involve manners and morals, which I am not called upon to treat in this paper. When errors of speech have become established, or even frequent, making children critical seems the only way to banish the errors; but as children are so liable to pick up bad sentence forms, it is well to pre-occupy the ground, and early to fill their minds with the correct forms of sentences that are commonly abused. It is a good plan to post prominently in the school-room such standard sentences as, It is I, it is he, it is she; I did it yesterday, you did it yesterday, he did it yesterday; I was here, we were here, you were here; I ought not to do it, you ought not to do it, he ought not to do it; I haven't any pencil, I have no pencil, etc., etc. These should often be recited, and arranged in oral exer-

cises as examples of "how I should talk," and when the children have learned to write, should be written again and again. This caution should be observed: Young children should not be set to wrestling with false syntax. In order to have a conscious knowledge—to know that he knows—it is not necessary that a child should have his mind filled with incorrect forms; his knowledge in language rests on faith, and must be dogmatic; hence only correct idioms should be kept before the school, while bad sentences and bad spelling should be kept out of sight and sound.

The grammatical errors of children are of two general kinds: those resulting from analogy, and those that come by imitation. A child that seems blindly unreasoning in almost everything, will reason by analogy in the cases of plurals and the irregular verbs. When I asked my little boy what he did with his knife, and he replied that he "shutted it up and putted it in his pocket," he certainly was reasoning from analogy; but when the child says, "I done it yesterday," and "The pencil hain't got no point," you may be sure he is proceeding by imitation. The method of treatment is the same in each case; the child is not to be reasoned with; he is simply to be set right, and by tact and authority made to do right and do it repeatedly, until a correct practice becomes a correct habit. Teachers will save time and patience when they recognize that grammatical agreements are beyond the reasoning powers of the child; and if we undertake by reasoning to break up his method by analogy—the simplest way in which he reasons, and which leads him astray here only because the language wanders—we confuse rather than assist.

Since the child gets his principal errors by imitation, the importance of correct and graceful speech on the part of primary teachers, cannot be overestimated. And yet we know that this qualification of beautiful speech is very seldom considered in the selection and assignment of primary teachers. A school trustee in search of a teacher, said to me not long since, when I objected to a certain teacher that she spoke ungrammatically, and badly mispronounced many common words,—"O well, you say she is a good manager; we want her for the small children, and I guess she'll do." That the children are poisoned by a bad grammatical atmosphere at home and on the streets, is bad enough and is as much as the schools ought to contend with, and demands a most skilful treatment; but when the children are inoculated with bad grammar and mispronunciation in the very school room and by the teachers themselves, the case is indeed desperate and the chance for improvement hopeless. Bad English does its worst mischief here, since bad grammar crystallizes into bad habits, and no amount of learning in after years, can dissolve it and reshape it in forms of symmetry and beauty. What is the duty of educators? Evidently, to prevent teachers of the kind indicated from getting into the schools; and to sternly weed them out when they are in.

Early attention to manuscript work is desirable and necessary if we are to secure accuracy and facility. This should be carefully progressive. It is best begun with the reading work. Indeed the best methods of teaching reading require the use of the pencil by the child almost from the start. The first work will be copying words—noticing spelling, including capitals and apostrophe as already stated; the second, copying sentences—noticing the beginning and ending; the third, copying paragraphs—noticing the indenting and pointing. When some progress has been made, paragraphs from the reading book may be copied by the children at their seats, and brought into the class for reading lessons. The marks of quotation, the apostrophe, hyphen, and caret, should be taught as necessity arises. Here, as in the teaching of words and every-

thing else, the best time to teach a thing, is when the child needs to know it. In introducing a new feature, the skilful teacher will create a necessity for the knowledge to be presented. This work may be followed by the writing of the same kind of matter—sentences and paragraphs—from the teacher's dictation.

We are now ready to introduce original work. This should begin in a simple way, and advance by easy steps and graded material to the formal composition. The following outline with accompanying suggestions, is presented as methods to the end in view:—

1. Require children to supply omitted words in given sentences—the places being indicated by dashes.

2. Have the children finish sentences begun by the teacher.

3. Have the class compose and write sentences of words selected from the reading lesson—the point is to have the children use it in new combinations, words with which they are abundantly familiar; the effort and the interest can thus be concentrated upon the thought and its expression rather than upon the word-forms. This work should be continued until the children become perfectly familiar with the various sentence-forms and the common marks used in manuscript work. If the features of the work are progressively taught, and thoroughly impressed by repetition and use—from the very introduction of the work all along through the school course—they will become so automatic as to require little care, and the mind will be liberated for purposes of thought and elegance of expression. Manuscript work, equally with oral expression, must become a habit if we are to be easy and accurate in it.

4. A fourth step in original work may be the construction by each child of one sentence on a given topic—as some familiar object placed before the class and carefully examined by the children. Unite these sentences and we have a composition written by the class. This method shows how a description grows; the more we see the more there is to say; if one pair of eyes will look long enough, they can see as much as all the eyes saw; if one pencil will talk long enough, it can say as much as all the pencils said.

5. Have each child write five sentences on some topic—some object, examined as in the last step. The result is a composition written by each pupil. The children should write on the same topic, as emulation stimulates thought and the stimulus of the thought helps to recall word-forms and sentence-forms.

6. A good sixth step is formal descriptions of objects. These should be accurate as far as they go, and as full as the maturity of the pupils and the nature of the object properly admit. Description should proceed according to a natural and appropriate order, thereby cultivating arrangement in an objective way, and leading to an appreciation of an orderly and logical arrangement when abstract themes are taken up in reading or in writing. Exercises on objects cultivate the perceptive faculties and stimulate observation and expression at the same time; for it is a matter of common experience, that a person will observe twice as much and will tell twice as easily, when he observes with the purpose of telling, as when he observes and tells without this purpose originally in view.

7. A seventh material for manuscript work is good pictures. To look at a picture, tell what it represents as a whole, and notice the parts in an orderly way, is no mean exercise. When we look at objects, they are either still or moving; a picture is always still; yet we ascribe actions and motives to the

persons in the picture, based upon their position; and we proceed to weave a plausible story with the threads picked up here and there from the print or canvas. Here we are using a new faculty of the mind—the imagination; while previously we have used chiefly perception and memory. Mrs. Knox happily says: "Perception is the discoverer, memory the treasurer, and imagination the artist,—the picture loving and picture making power of the mind." I have often observed that as we excite the imagination, we stimulate expression and add to its energy and power.

8. A story told or read by the teacher with oral and written reproduction by the pupils, exercises the imagination—but in a passive way—and makes demands upon the memory. The ability to reproduce with spirit depends directly upon the extent to which the imagination has been excited.

9. As a species of manuscript work that is very valuable in its practical bearings, and as an introduction to essay writing, I have found the writing of letters exceedingly helpful. No school work more readily excites the interest and engages the attention of the children. If properly managed, it can be successfully and profitably begun as early in the course as in the second and third reader classes; and can be continued at intervals through the entire course. The most approved business forms of the letter, and the proper manner of folding the paper, and addressing and stamping the envelope, should be systematically taught, and familiarized by blackboard drills, and work in the seats with pen, ink, paper and envelope.

10. Formal composition writing can properly be introduced only after children have acquired some degree of skill in manuscript work. If this has not been attained, exercises to secure it should be arranged and continued; just as in arithmetical problems, if a child does not know the fundamental tables, he should be put into drill work that will teach them. Thinking should not be impeded by deficient knowledge of, and lack of skill in, manuscript work. If the child has been thoroughly trained, talking with the pencil will no more hinder thinking or expression than does oral speech. In both cases, the expression of thought should stimulate thought.

Having secured reasonable skill in work, and the ability to express thought in sentences, we should consider four things: First, the choice of subject; second, the getting of ideas; third, their arrangement under their proper heads; fourth, the orderly arrangement of the heads. When these have been attended to, the pupil is ready to begin writing his composition. When a class enters this field, it is advisable that all should take the same subject, and that it should be worked up in the class previous to any one's writing on it. The accumulating of ideas is thus rendered easy and interesting; and the importance of grouping them under heads, and arranging the heads, is sure to be seen. The most that can be said here on the choice of subject, is that it should be simple, generally objective, and easily within the range of the child's powers and his sources of information. Just when this work shall be undertaken, how much of it shall be done, and whether the subjects treated shall be concrete or abstract, will depend upon the advancement and maturity of the pupils. Composition writing is a bugbear and a grind only because children are not prepared for it. With the preparation and method indicated, the exercise should be delightful and exhilarating; and should be sought by the children, rather than dreaded and shunned.

11. The material that I set the most store by, if rightfully used, and which is always at hand and available in all grades if the teacher have the proper spirit and skill, is the reading matter used in the schools. I have a growing

conviction that the language work of the school and the work in reading should be carried on in conscious harmony, if, indeed, they should not be identical. For primary grades, I have more than hinted at this in the methods of using the words of the reading lessons in the language work. With the younger children, the trained modern teacher makes every reading exercise a model language lesson; the thought of the lesson is developed, and word-forms and sentence-forms are made familiar to the child. This idea should be extended to the advanced reading classes. I will briefly suggest the methods.

Three points are to be held in view by the teacher. 1. The reading class must first of all gain a knowledge of the subject matter of the reading lesson. This must be insisted on in all cases; no half understanding of the text should be tolerated. 2. The reading work should result in the evolution of power; the pupil should acquire the ability to read other books intelligently. The text-books in arithmetic, geography, and history should be intelligible to the child because the reading class has trained him to get thought from the printed page; whereas, just the reverse of this is usually the case, viz.: the child advances in his ability to interpret the reading lesson, only as his mind is trained and expanded by the other studies. 3. The reading class should constantly cultivate the literary taste, and stimulate the love of letters in the pupil. With these purposes in mind, the following methods will avail much:

1. Pupils should use the dictionary freely to determine the meaning and pronunciation of words; they should also make special study of the ordinary prefixes and suffixes, and learn the meaning and use of some of the word-roots that are frequently repeated.

2. The manner of using reference books should be taught, and their use encouraged. An interesting and profitable feature of the reading work is the hunting of places mentioned in the text, and the looking up of allusions and historical references.

3. A main object in language work is to enlarge the vocabulary of the child and thereby increase his power of expression. A good exercise to this end, is to ask questions on the reading lesson, and require answers as nearly as possible in the terms of the book. It is not enough that the child know the words, the law of ownership-only-in-what-we-can-use demands that he should actually use the words—incorporate them into his speech—if he would make them his own. Written answers and abstracts serve the same purpose in a manuscript way.

4. Enlargement of the vocabulary and, at the same time, increase in precision and ease of expression, are promoted by exercises in synonyms. The reading class furnishes the ready opportunity, while the method is simple and easy. Question: "What word can you substitute for such a word?" Have each member of the class write a substitute word and see how many synonyms there are. Have these compared. Questions: "Do you see any difference in the thought?" "What are the shades of meaning?" etc.

5. Changing the poetry to prose is a valuable exercise. It tends to enlarge the vocabulary, compels an understanding of the piece, and cultivates literary skill; words and elliptical expressions must often be expanded into phrases and clauses; an inverted order must be made natural, and involved constructions unfolded.

6. In many of the regular reading lessons there are noble sentiments and striking and beautiful sentences that are worthy of special study, and should find lodgment in the mind and heart as memory gems. It is well to linger lovingly on these, until their nobleness and beauty are perceived and impressed.

7. Choice selections from standard authors—sometimes mere passages, sometimes whole pieces—should be memorized. These should be frequently recited, and occasionally written out from memory with close regard to punctuation marks and capitals. In this work and in the preceding, we elevate the taste and cultivate a love of letters.

8. Probably the strongest exercises for the pupils, and which require great skill on the part of the teacher, are the explanation of figures of speech and the definition of word-phrases. A figure, *a trope*, is a word turned from its original and proper meaning; and because the word is turned from its ordinary dictionary meaning, dictionaries rarely furnish all the helps and explanations needed to elucidate the text; only the live and intelligent teacher can do this.

To analyze and define phrases, while not so delicate nor so close work as analyzing figures of speech, is sometimes more difficult; inasmuch as the dictionary in giving secondary and accommodated meanings of a word, often gives a hint of the figurative use you are studying; but the meaning of a phrase, taken as a whole, may have no relation whatever to the meaning of any single word in the phrase. During the past year I had occasion to ask a class of one hundred adults, what was meant by the phrases "Carrying coals to Newcastle," and "I have burned my bridges behind me." Two or three of the one hundred knew the significance of the first; not one knew that of the second. One young man of good ability, and a graduate of one of our State high schools, said that he had heard the expression "Carrying coals to Newcastle," but never knew exactly what it did mean. Herein was he to blame, and herein was displayed his defective training, viz.: that he should persistently hear things he did not understand and not persistently hunt meaning. And herein are we deficient as their teachers and educators, if we fail to compel such attention to the reading exercise on the part of teachers and pupils, as will secure the knowledge and use of the words in the reading lessons and the unfolding and understanding of the figures of speech and the word phrases.

The subject of reading is the mightiest instrument of English culture the school places within our grasp. If rightly handled, it is well-nigh a liberal education in itself. Ability to interpret the printed page, is the key that may unlock for the child the whole realm of knowledge; and if to this ability to interpret—to get at the meaning, which is largely intellectual—we add the sense of appreciation, which is the relish—the enjoyment of reading, and stands in about the same relation to the purely intellectual act, that the sensations of taste and appetite do to the physical operations performed in sustaining life by eating—making a perfunctory process an ever recurring pleasure; if, I say, to the intellectual act of interpreting we add the sense of appreciation, we will give a relish and zest to reading and English culture, that will only be satisfied by drinking deep at the "well of English undefiled."

DISCUSSION OF THE PRECEDING PAPER.

MR. BREBNER, School Inspector of Sarnia, Ontario, said:

It has given me much pleasure to listen to the very able paper by Prof. George. I am glad that I can agree so completely with the sentiments there enunciated. After looking the ground over somewhat, I find that the subject

of technical grammar is carried further in the lower grades of Ontario schools than it is with the same grades in the United States. We are now trying to bring language work into greater prominence. Mr. Brebner next gave an outline of language work which differed little from that of the paper. Speaking of the importance which attaches to the use of correct language by the teacher, Mr. Brebner explained that each applicant for a teacher's certificate was compelled to conduct a class before a board of examiners. A person sat by whose business it was to note all the errors of speech, such as past participles and past tense used incorrectly, use of adverbs and adjectives and other common errors. The examiners hear every teacher conduct a recitation before granting a certificate; if more than a certain number of incorrect expressions occur the candidate is recommended to take another term's work at the training school. Every teacher knows that he cannot have a certificate until he has fulfilled the requirements. This rigid system has been in vogue since 1876. The examiner has power to suspend any teacher's certificate if said teacher does not comply with the suggestions and requests of the examiner.

MR. CLARK, of Davisburg, asked Prof. George how this work which he had so ably outlined could be taught to a district school boy in ten weeks.

PROF. GEORGE replied that he had not yet learned how a good literary education could be acquired in ten weeks. Put the pupils of all classes and of all grades into language work. A young lady who was almost perfect in her use of English had never looked inside of a grammar. When told she must take up the study of grammar she asked "Why?" I told her that she was fitting herself for teaching, and in order to get a certificate she would have to come before some inquisitive examiner who would ask her to analyze and parse. Not that I would have it thought for one moment that I do not think that there is any useful purpose subserved in the study of English Grammar, but the great work of language should be first taught, and the science of language may come in later on in the course.

M. O. GRAVES, Ann Arbor, said:

One great defect in our practice is the failure to learn how to use the dictionary correctly. The greatest sinners in faulty English are not the professionals but the transients. The time is past when one can excuse himself for a defective use of his mother tongue by pleading a lack of opportunity to acquire an education. We should aim, however, to extend the circle of our usefulness: the graded school should seek to assist the district school teacher.

PROF. ABBOT, Agricultural College, said:

If I wanted to test the actual benefit of a school as a benefit, I would go to the reading class. Love of letters, good literary taste, sympathies called into action, views of higher ground, all gained in a well-conducted reading class. If I do not find these classes doing good work I regard the most important factor in good teaching neglected.

F. M. TAYLOR, of Albion, said:

I wish to make a single suggestion, directly in answer to the question which has just been asked. I want to offer it very modestly, as I have had scarcely any experience in this line of work. However, I am, in a general way, responsible for the English work with us, and, having examined a good many students in English grammar, I know something about those older boys and girls who say they never could learn grammar, and don't see any sense in it, and so forth. We have quite a good many of that sort in our first year preparatory, and last Fall we tried a new plan to secure, if possible, the interest of the class and a right attitude of mind toward the whole subject. How the

plan worked I have no means of knowing, as I took a leave of absence for the term, but it is easily tried. In a single word, it is the method of discovery—the method so extensively used in natural science.

The night before our work began, I bought fifty copies of the Evening News. These were distributed to the class the first hour (no one having any book), and all went to work, upon a paragraph chosen at random, to discover grammatical relations and functions for themselves. At this sort of thing they expected to work for at least a week, until they had drawn out, by their own study of actual everyday English, the principal parts of speech, and the principal factors in the proposition. This method, I believe, would cure the student of looking at grammar as something purely artificial and formal, created by the teacher or the author studied; would enable him to realize that grammar is the science of the necessary and fundamental functions and relations of language—relations and functions which a little careful looking would enable him to discover as well as any one else.

Of course, we soon take up a text-book; as I agree entirely with the views embodied in Professor Payne's paper of yesterday, that the best system avoids extremes. The method of discovery should be used to secure a clear comprehension of the nature of grammar, a knowledge of the processes by which its laws are investigated, a better appreciation of the real character of these laws, and a lively interest in the study. When these results have been attained, second-hand knowledge, derived from the text-books, is amply sufficient for the larger part of the science.

THE WHY AND THE HOW OF THE USE OF ENGLISH AUTHORS IN THE HIGH SCHOOL.

BY MISS L. A. CHITTENDEN.

Some famous Greek, whose name doubtless you can supply better than I can, said of his early training, "My father determined to make me a good man, and so he made me learn Homer by heart." Wise old heathen! sensible enough to know that the surest way to save his son from the corruption of the time was to acquaint him with the best there was in his own literature, to saturate him in his youth with the noblest thought of his time, to take him into the great Homeric art gallery and let him feast his soul with the magnificent visions. "I want this boy," he said, "to grow up to be a good man, so he must learn Homer by heart. There are the heroes after whom he must shape his life, there are the deeds he must try to imitate, there are the thoughts he must cherish, there are the noble scenes to occupy and delight his soul,—therefore he must learn Homer."

If such views of education were wise in those days, how much wiser in ours, when the printing-press, the blessing and bane of our time, is pouring forth with each new day new floods of vile stuff that in the guise of literature is alluring our youth to their ruin. We know that in the child the imagination is the dominant faculty. But what account has been taken of this fact in his education? All the other faculties have been, and indeed are, better trained in our schools than this which, if left uncared for, is likely at any time to rise

in revolt and overthrow all our labors, but which, if trained aright, is a powerful auxiliary to the other faculties in the accomplishment of their peculiar tasks, and which we might almost say is the basis of them all. Our schools have offered nothing adequate to the demands of the imagination. What wonder, therefore, if the boy provides it for himself as best he can, never dreaming that the alluring tales of wild adventure over which he delights to pore are filling his soul with a deadly poison. The only thing possible is for the teacher to take the matter in hand, and educate this imperious queen of the little world of childhood as becomes her rank, till by and by wedded to reason, her lord, she ceases to bear the palm alone.

Now the wise educators of our time have awakened to this necessity, and changing a little the words of the old Greek they say, "We want this boy to grow up to be a good man, therefore let him learn Shakespeare by heart. Have we not a literature a thousand times more attractive to the boy than that over which he is poring? Let us take him by the hand and walk with him through this enchanted land and show him its varied magnificence, let us teach him to see and to feel its beauty, let him learn lessons of life from these scenes, let him fill his soul with the noblest sentiments that have fallen from the lips of the wise and good." The great object then of the introduction of the study of English authors into our schools, put upon us by inevitable necessity, is to counteract, if possible, an all powerful evil, an evil that probably will not diminish as the years pass by. The object is both ethical and æsthetic, to insure good morals and a cultivated taste. There were, of course, subordinate ends in view. It did not escape the eyes of these wise educators that as a means of giving facility in one's native tongue this study would be unrivaled. Every lesson is essentially a language lesson. That fact can not be helped. It inheres in the study. Our ultimate authority for the use of words is our English authors. Facility in the use of language can come only by critical study; and the more critical our study of a masterpiece the greater becomes our admiration for it. Its beauties, like the beauties of a flower, are best seen through a microscope. Neither is it to be denied that this communion with genius, in whatever form we find it, is a powerful stimulus to mental activity. This *one reason*, though subordinate to the others, is sufficient to warrant the introduction of English authors in our schools.

Carlyle says that the main thing that the university did for him was to teach him to read. To read! How much that implies! It implies knowing what to read, knowing what has been written by the great minds of earth; it implies the desire to read what is good to be read, a soul in harmony with the souls of the great and noble; it implies the ability to get at the sense of an author, to follow where he leads even though he takes us above the Æonian mount; it implies the ability to estimate the worth of a work,—a careful training of the critical faculty, the development of the love of beauty and truth until it becomes the eye of the soul.

And now it devolves upon us to begin this task of teaching our youth to read. In view therefore of the all-important objects to be attained it becomes needful carefully to inquire, how this can be done. And certainly the first subject of investigation must be *what* to read, and in what *order*. Now if the principles so far put forth are correct, it follows that the works presented to the pupil in the earlier and perhaps the larger part of his high school course should be of the imaginative sort, novels, romances, poetry, the drama, and such histories as have the life of fiction in them; that these works should be selected with the greatest care with regard both to the purity of their English

and the nobility of their teachings; that they should not consist of mere sentiment, however noble, but should present a panorama of fascinating pictures; that they should be carefully graded with respect to the difficulties the learner would find in them; that as great a variety as possible be offered to delight with novelty as well as with beauty. If this is carefully done, it would seem that before the close of this high school course there should be no heights of philosophical poetry, or argumentative eloquence where, by careful guidance, he might not climb. Moreover the work done in the class room should, as far as may be, open vistas into the fields of reading that lie beyond. One of Cooper's novels,—Cooper of whom some critic has said, he is as purely Greek as Homer in the nobility and classic grace of his creations,—one of Cooper's novels read, or perhaps discussed, in the class-room would lead to the outside reading of others. Perhaps there is no surer way of awakening an interest in the study of history than the reading of "Marmion" and the historical romances of the Wizard of the North. Do not despise him because for you his wand has lost its enchantment; it is still all-powerful in the realm of youth.

But we will now suppose that our selection is made, that it is adapted to the wants of the class, neither so difficult as to discourage all effort, nor so easy as to present no stimulus to effort. What shall we do now with the selection? How proceed to study it? Hales, in his admirable Introduction to his "Longer Poems," says, "the first thing to do with the poem is to learn it by heart;" and in dealing with simple ballads, or other short poems, that would doubtless be frequently an excellent thing to do. But if it is "Evangeline" or "Enoch Arden" or "Snow Bound" or "The Tempest," it certainly would not be a wise thing to attempt. Many out of the finer parts should, of course, from time to time be carefully committed to memory, but that should only come when we see that these parts are preëminently the ones to be stored away for constant aid or pleasure. Another writer says, "the work should first be read through." Certainly, if it is not beyond the ability of the class let them read it through by themselves, but very few of a senior class of a high school would read "Paradise Lost" understandingly by themselves, but go through it carefully Book by Book as you do Virgil and Schiller, and then they will be able to read and enjoy it.

Before a masterpiece can be loved, before its spirit can fill the spirit of a the child it must be understood. That is the first thing to be done. No one can criticise a work, or find enjoyment in the fine passages, the noble thoughts, or commit parts to memory with pleasure, or read it aloud with proper expression until he knows what his author says. The meaning then of words, their exact meaning, is to be got at, and I suppose the teacher's lips could hardly utter a wiser remark than just this, "Let's see what Webster says about it." However much one might object to converting the study of a masterpiece into mere word study, it is certainly both interesting and profitable frequently to call attention to the derivation of words, especially difficult words, a knowledge of whose derivation would aid in the apprehension of the meaning, and those words that have peculiar derivations, or have undergone peculiar changes; as, for example, *jolly, kind, libel, mortal, uncouth, uneasy, villain, girl, voyage, caitiff, clergy,* words taken indiscriminately from Trench's "Select Glossary." If the pupil were required to keep for review in his blank book, a list of all such words with the notes he had taken of their peculiar derivations or significations it would be an extremely pleasant exercise.

The meaning of passages must be studied. It is comparatively easy even for

the teacher to suppose he understands a line of poetry and learn only after careful examination that it was but imperfectly comprehended. A very excellent test of the understanding of a passage is the same that Hamlet gave as a test of his sanity: "Bring me to the test, and I the matter will re-word." If a pupil understands a passage he should be able to put it into his own words. In this exercise there is abundant opportunity for the sharpening of wits, and when the wise editor has not removed all difficulties by exhaustive explanations, it bears a not very unfavorable comparison with the exercise of translation from a foreign language. We must learn to make haste slowly. Nothing could be better than every now and then to pass the recitation hour in as exhaustive a criticism as possible of a few lines. Take for example the following four lines from Goldsmith's "Deserted Village:"

> Beside yon straggling fence that skirts the way,
> With blossomed furze unprofitably gay,
> There, in his noisy mansion, skilled to rule,
> The village master taught his little school.

How exceedingly simple these lines are: and yet, judging by myself, some teachers even would have to prepare somewhat to answer correctly all the following questions, the only object of which is to bring out the meaning of the passage and the author's use of English: What is the difference between *beside* and *besides?* Between *yon* and *yonder?* What is meant by *straggling* fence? Can you substitute a better term for *straggling?* Is *that* correctly used? Is *skirts* literal or figurative? What is *furze?* What other name has it? Where does it grow? What is gay, the *furze*, the *way*, or the *fence?* What is the derivation of gay? What is its exact meaning in this line? How can you derive this meaning from the meaning of the root? What is meant by *unprofitably* gay? How can *mansion* be applied to a school-house? What is its derivation? Can the mansion properly be called noisy? What is noisy? What figure is used, then? What is the difference between *rule* and *govern?* What is a *village* in England? What in the United States? What is the difference between *taught* and *learned?*

In some writers perhaps the principal difficulty would be in unravelling the intricate phrases, the untwisting all the chains that tie the hidden soul of harmony. Some, like Milton, form a complete mosaic of allusions to history, mythology, and fiction, the mastery of which is indispensable to an understanding of the work.

And when a class come to the study of such a poem without an idea of even the existence of a classical dictionary, it is plain that some work must be done before even he, whose soul was like a star, can speak to them in thoughts that breathe and words that burn.

Take a single passage from "Il Penseroso:"

> "Or bid the soul of Orpheus sing
> Such notes as warbled to the string
> Drew iron tears down Pluto's cheek,
> And made Hell grant what Love did seek."

Suppose you direct a class to learn that by heart but fail to require them to study up the mythology, when they have an idea that perhaps Orpheus is one of the angels, and that Pluto—well, if they have by chance heard of Plato it all passes for one with them. The next line goes on:

> "Or call up him that left half told
> The story of Cambuscan bold,

Of Camball, and of Algarsife,
And who had Canace to wife,
That owned the virtuous ring and glass,
And of the wondrous horse of brass
On which the Tartar king did ride."

What is a pupil going to make of that? And even the teacher will have to get down his Chaucer and go over the old poem before he can explain it.

Now I suppose this much would have to be done with any selection, and with any grade of pupils. The selection must first be understood from beginning to end. This lays the foundation.

But in order to an adequate conception of the work as a work of art, of genius, not merely its meaning, but its beauties of expression, its figures, its rhetorical excellences, its wit, its humor, its pathos, must be made the subject of analysis. The closeness of this study must obviously depend upon the pupil's familiarity with rhetorical principles, but to read "Evangeline" without attention to the figures, or the "Rape of the Lock" without its anti-climaxes and its humor, or Macaulay without his antitheses and specific terms, would be the play of Hamlet with Hamlet left out.

The success with which the study so far has been attended depends very largely on the teacher's ability to make each lesson definite, so that the pupil shall know exactly what he has to do. It should be as definite as a lesson in Algebra. The first time over the selection where the object is to get the author's meaning, the directions for study are very explicit: "Learn the meaning of every unfamiliar word, of every passage, of every allusion. Be able to put every thought into your own language." In studying the work rhetorically, it might be made definite by converting it into a hunting exercise. Thus: "Find in—pages, five metaphors, six similes, one anti-climax, etc."

But as this would necessitate some rather close calculation upon the teacher's part, it could be changed, when the pupil had learned how to hunt, to: "See what you can find in—pages."

But it may be the author makes no demand for rhetorical study. If he does, it must be given. Shelley's "Adonais" is figures, web and woof. To say we will omit them is to say we will omit the poem, for it can not even be understood without the figures. "Snow-Bound," on the other hand, requires little rhetorical study. It merely runs on with an artless simplicity like the music of a rippling brook. And so, instead, we study with delight the forms about the winter's fire, read the poet in the poem, and learn his love for nature and his faith in God. Again it may be that the chief thing with which we must concern ourselves is the thought, the correctness of the philosophy, the logic of the argument. In the "Ode on Immortality," the grandest of odes, there are not half a dozen words a child could not understand, there are no allusions, no figures to speak of, but the thought requires a mature mind to comprehend it. All these points must be taken into consideration in attempting to adapt the selection to the wants of the class.

But after a selection has been studied thus minutely, part by part, it still remains, especially if it be long, to consider it as a unit, its purpose, the nature of the plot, the doings of the different characters, the relation of one event to another, and other general matters that require only a thorough knowledge of the work. For the sake of definiteness, these points could be resolved into the form of topics or questions, thus placing before the mind a specific problem. Take for example the play of "King Lear." A class reading merely for the story could be given such topics as these: Narrate the life of Edmund as it

appears in the successive scenes. Narrate Cordelia's story. Collate all the passages referring to the influence of the stars upon the life of man. Was astronomy believed in in Shakespeare's time? Who besides Kent mourned Lear's cruelty to Cordelia? What became of Lear's Fool? Point out the similarity between Lear's case and Gloster's.

Such topics as these, if assigned in advance for preparation, are as specific as so many lines of Virgil or Schiller. But with maturer minds we would add to these, other topics requiring original thought. For example: What did Shakespeare mean by blending two such stories as those of Lear and Gloster? What is the teaching of the play? How does Shakespeare show any extraordinary skill in the treatment of insanity? How did he acquire that skill? Was that dramatist wiser who re-wrote the play, giving it a happy ending? Show the steps of the coming on of Lear's insanity. Select and commit to memory the finest passage in Act II., and give your reasons for thinking it the finest. How do you think Lear's insanity compares with Hamlet's? What are Lear's characteristics? These are a few of the topics that we might assign when we wish to give a critical study.

A recent writer in the Journal of Education says: "The attempt to criticise Emerson or Milton does not furnish evidence of literary ability in the average student, but rather the want of it," and advises that classes be restricted to getting at the meaning of their author. Perhaps this writer may have forgotten that it is the province of criticism to point out beauties as well as faults. I have no doubt that long before a pupil is advanced enough to criticise Shakespeare's plays as works of art, he may read them for the mere story, and that in so doing he perceives much of their beauty. But we are giving our pupils models of study by which they are to be guided in their future reading. Shall we teach them that some authors are absolutely without faults? or that their faults, if they have any, must not be regarded as such. Whether we will or not, the youngest children will criticise. A class of little ones are reading from their chart: "A man is in the box." "A cat is in the box." "A rat is in the box." Up pipes a little voice, "I should fink the box would be full pitty soon." The little philosopher fancies that the author of the chart doesn't quite know how full he is getting his box. Any child likes his book and reads it, or he doesn't like it and throws it aside. That is his way of criticising. If in reading "Paradise Lost," a pupil says: "I don't like these theological speeches," shall we answer, "Ah, you have been reading Taine, I fear. Taine is not strictly orthodox; his criticism of Milton is a piece of pure presumption. You must not follow him; you must bear in mind whom you are studying." Or if, perhaps, one ventures to inquire, "Do you think it strictly poetical in Milton to make his angel Uriel come down to earth on a sunbeam?" shall we dismiss the inquiry without even the consolation that Addison had felt the same doubt. According to this writer, we must never propound the question as to whether the Porter scene in Macbeth deserves its place, whether Caliban is too ugly for poetry or the dragon in the Faery Queen too horrible; whether the plot of Silas Marner is natural and the characters well drawn, or whether Emerson is inferior to Bacon—we must propound none of these questions, because it would lead to criticism. No, no, let criticism be as free as air. Let us teach our pupils to think for themselves, to take nobody's dictum for the excellence of an author unless that dictum accords with their own judgment; let us teach by precept and example to challenge every author, to accept him as a master only after proof of his power. And

all this is perfectly consistent with reverent handling. Flippancy of criticism has no place in an earnest soul. We must encourage the fullest thought in all matters, or we make machines, not independent minds. And suppose that now and then a wrong conclusion is reached; why, it is better to think wrong than not to think at all.

But in addition to the points presented to the class for their own study, opportunities are constantly offered to the teacher to lead the class beyond the strict domains of English literature, to give them glimpses of what is to be found in other literatures, and especially with classes that must obtain all such knowledge through a purely English medium these opportunities should not be undervalued. Supposing we wish to show the difference between the Shakespearian and the Grecian drama. The story of Œdipus the King compared with Macbeth will do more to give a clear idea of the difference than a bushel of notes from learned commentators. You perhaps are dwelling upon the beautiful devotion of Juliet. Then tell the story of Antigone's self-sacrifice and untimely fate, and say that these stories of Œdipus the King, and Antigone, with many others, can be found charmingly told in Church's "Stories from the Greek Tragedians," and if they do not read them it is because you have not told your stories well. The study of Byron's Dante enkindles a desire to read the "Divine Comedy." I have discovered that the teacher also finds more enjoyment in Spenser and Tennyson after reading the marvellous romances of Ariosto now accessible in English. Perhaps you may think this not very profound acquaintance with foreign literatures, but it is inspiring and may lead to something better.

But we must by no means forget our language training. So when we have a scene from Hawthorne or Irving that we wish particularly to impress upon a pupil's mind, an admirable way is to require a reproduction of it; and the contrast of his own with his author's style will do more than a lecture to convince him that his author is inimitable. If he has learned the secret of Goldsmith's simplicity, of Addison's directness, and of Hawthorne's diction, he will write well whatever he writes. If it be objected that this does not lead to originality, it may be answered that it is the natural method. Every writer had his master. Macaulay had Burke, Burke had Demosthenes, Spenser had Chaucer, Chaucer had Petrarch, Shakespeare alone had only Shakespeare.

Now I take it that if we have studied a worthy selection in the manner here indicated, we have done all that is necessary for the accomplishment of the great end in view. We have presented to the pupil a noble writing, he has got the author's meaning, he sees the source of the author's power, whether it lie in brilliant rhetoric, pungent satire, or convincing argument, in noble sentiment, or high philosophy. Henceforth he is not to be deceived by the flashy rhetoric and gaudy shows and false sentiment that formerly allured him; he has stored away many noble passages to guide and strengthen him; his wits have been sharpened by many a hotly contested passage-at-arms; he is learning the secret of the mastery of his native tongue; the great master has taught him more of life, of men than he could have gained by years of experience. Nothing less than this would have answered our purpose: nothing more than this is needed. And so to-morrow to fresh fields and pastures new.

Now I think it must be apparent that this study properly managed furnishes a powerful stimulus to intellectual exertion. It is scarcely possible for an active mind to come into contact with minds like those of Milton and Burke without being thoroughly aroused. But it is well in our new-born zeal for

English not to ignore certain weaknesses that inhere in it, and that, though it is in certain lines without a peer, render it inferior to some others as a purely disciplinary study. If what I have outlined is accepted as sufficiently close and critical, it appears that there must be a necessary and delightful fitfulness about the study, quite different from the regular blows of a foreign language that develop a certain set of faculties in the same way that the blacksmith develops the muscles of his arm. And I doubt if even for the sake of increasing its power in this respect, many teachers would deem it advisable to compel pupils to learn a play by heart merely to cultivate the memory, or subject the whole to grammatical analysis merely to make close thinkers, or dig up the roots of every word merely to make what we can never make, philologists.

But in addition to this fitfulness, which may perhaps be atoned for, at least in part, by certain excellencies, there are two other points which we must not fail to recognize in assigning to English its place in our courses of study. These I might designate as its lack of *forcing* power. One of these points arises from the very nature of criticism, which is a matter of opinion, not of fact. Take for example such a problem as this from the topics on criticism: When did Lear's insanity begin? Collate the passages that bear upon the point. It is a definite problem. The business of the pupil is to solve it. He may read Gervinus, and Schlegel, and Dowden, or whatever authorities have discussed it, but he has still to make up his own mind and prove his position from the play. Perhaps the teacher cannot agree with the decision made. But he cannot say: "No, you are wrong. Lear was *not* insane at the opening of the play. Go over your work again and find out your error." No, he can only say: "Ah, I see you have adopted Dr. Brigham's views. I think the best critics take different ground, as I shall try to show you. But of course you have a right to your opinion. I cannot say positively that you are wrong." There's the rub! In geometry you could say, "You are wrong. Correct your reasoning." In Latin good old Dr. Arnold would box a boy's ears, and send him to his seat to correct his lines. But perhaps the greatest weakness is the difficulty of *calling a halt.* A study to furnish the best intellectual discipline must be progressive; one part is preparatory to another; one must begin at the beginning, not in the middle. One can't read Faust without having first learned his German grammar, nor can he begin Algebra in any place he pleases. But a pupil that can read English intelligently sees no reason why he cannot begin its critical study in any place he desires. He has as much idea of the proper gradations of exercises as a certain German music teacher had of the necessary drill in music, who is said to have given a little girl her first music lesson in this wise: "You see tat key? Tat iss A, und tat iss B, und tat iss C, und tat iss E, und tat iss F, und tat iss G. You see?" "Yes." "Goot, goot! Now ve vill blay te Moonlight Sonata." In many cases a pupil is trying to play the Moonlight Sonata without having practiced an exercise. And what is worse he can see no reason why he should not be allowed to do so. The utmost exertion of power comes from the consciousness of the necessity of exertion, from seeing that each lesson must be prepared or failure will result. But he can begin the critical study of Macbeth, as far he can see, with a trifling knowledge of grammar, no rhetoric, and without any previous experience in critical study. If he fails in Macbeth, he calmly trusts that Hamlet will be better adapted to his wants, and if he fails

in Hamlet he looks forward with peaceful soul to Paradise Lost as a land of blissful rest.

Without doubt these inherent weaknesses may, when recognized, be to a considerable extent remedied. Yet the ideal course of study consists in a well balanced proportion of studies, each valuable in itself, and each peculiarly fitted to develop a certain side of the character. And in so far as we attempt to force a study to develop powers for which it is not naturally fitted, in just so far we fail to realize the greatest good from it. To send our young people out from school with such knowledge of English literature that they look upon Ben Jonson as an elder brother of the great lexicographer, or Shakespeare as a myth, or regard the rhetorical beauties of the Bible as on a par with Mother Goose's Melodies, is to give them no fit preparation for life. But how much the matter would be mended if English were entirely to supplant the foreign languages, is an open question. One thing is certain. English demands a larger place than it has as yet been accorded, but how much, judge ye.

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